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BLUE RIDGE

HABITAT MANAGEMENT PLAN

BUREAU OF
LAND MANAGEMENTCALIFORNIA DEPARTMENT
OF FISH AND GAMEU.S. FISH AND
WILDLIFE SERVICEU.S. FOREST
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THE BLUE RIDGE HABITAT
MANAGEMENT PLAN

WILDLIFE HABITAT AREA CA-010-WHA T11

EFFECTIVE DATE: NOVEMBER 1985

CALIENTE RESOURCE AREA

BAKERSFIELD DISTRICT

U. S. BUREAU OF LAND MANAGEMENT

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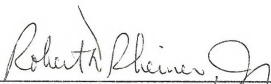
A SIKES ACT COOPERATIVE FEDERAL - STATE
MANAGEMENT PLAN
TO IMPROVE WILDLIFE HABITAT ON PUBLIC LANDS

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CONCURRENCE AND APPROVAL


This Habitat Management Plan as written meets with our concurrence
and approval.



District Manager, Bakersfield District, BLM

12/6/85

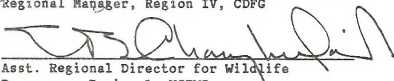
Date



Regional Manager, Region IV, CDFG

1/6/86

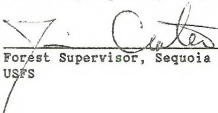
Date



Asst. Regional Director for Wildlife
Resources, Region 1, USFWS

2/14/86

Date



Forest Supervisor, Sequoia National Forest,
USFS

12/30/85

Date



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CHECKLIST FOR PREPARATION AND REVIEW
OF HABITAT MANAGEMENT PLANS

State
CA
District
BAKERSFIELD
Resource Area
CALIENTE
HMP Name and Number
Blue Ridge-1
HMP Prepared by
George Sheppard and Bill Lehman

| REVIEW CHECKLIST | SURNAME | DATE |
|---|-----------------|---|
| 1. Master Memorandum of Understanding, Sikes Act Agreement and/or Supplemental with State Agency. | | 12 July 85 |
| 2. Preliminary meeting(s) with State Agency (or other appropriate cooperators) to jointly discuss HMP objectives. | | 10 July 84 11 January 85 7 March 85 17 July 85 |
| 3. Endangered Species Act Compliance completed by | Sheppard | Shep 7 Nov 85 |
| 4. Review by District/Resource Area Specialists | | |
| Range | Watts | R, DW 11-7-85 |
| Wild Horse and Burro | N/A | |
| Hydrologist | Gradek | |
| Forestry | Lewis | JB 10/21/85 |
| Fisheries/Botanist/Wildlife Biologist | Saslaw | JS 12/5/85 |
| Lands | Vaughn | DEV 10/22/85 |
| Minerals | Horne | 7/21/11/4/85 |
| Recreation | Struble | MS 10/18/85 |
| Wilderness/ACEC | Struble/Waiwood | MS 10/18/85 / WWD 10/30/85 |
| Cultural | Christian | DC 10-22-85 |
| Visual | Struble | MS 10/18/85 |
| Environmental Coordinator (reviews EAs) | Waiwood | WWD 09/24/85 |
| Support (Chief of Operations/Fire Management) | Hafenfeld | |
| Others | Voine | KV 10/18/85 |
| 5. Reviewed by Area Manager | Carpenter | JC 11/7/85 |
| 6. Reviewed by Chief of Resource Management | Salt | JS Salt 12-5-85 |
| 7. Draft HMP and EA reviewed by State Agency authorized officer or other cooperators. | | |
| 8. Final review (if appropriate) by State Director | | |
| 9. Reviewed and approved by District Manager | Rheiner | Bot Rheiner 12-6-85 |
| 10. Approved by State Agency authorized officer | | |
| Remarks | | |



ABSTRACT

The Blue Ridge Habitat Management Plan (HMP) is designed to maintain and improve habitat conditions for the California Condor (Cymnogyps californianus) in the Wildlife Habitat Area (WHA). The WHA comprises condor Critical Habitat legally determined by the U.S. Fish and Wildlife Service and is administered and owned by numerous public and private agencies. Additional public lands adjacent to the WHA are considered integral to its management. An interagency Coordinating Committee was responsible for development of the HMP and will meet regularly to assure implementation through consensus and joint funding. The Plan includes objectives designed to enhance quality and quantity of the habitat elements food, water, cover, and space for this extremely rare species. It is also expected that through management efforts for the condor, most other wildlife species will benefit. Numerous planned action items are scheduled to achieve these specific objectives. Implementing the HMP is expected to take 5-7 years. An annual Progress Report and a 5-year revision are included as part of this HMP.



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On the Cover: Left twin snag roost tree often occupied by one or more
condors during 1984 (Line drawing by Loren Porzer-Kepner).

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I. INTRODUCTION

A. Justification

This Habitat Management Plan (HMP) culminates about 10 years of concern for Blue Ridge as a California Condor (Gymnogyps californianus) roost site. It emphasizes a cooperative multi-agency approach to the long-term management of federally determined condor Critical Habitat, with emphasis on the condor roosting, bathing, and feeding habitat contained within. It also emphasizes a high degree of communication and cooperation with the private landowners in the area.

Numerous factors support a coordinated and timely approach to management of the Blue Ridge area as prescribed by this HMP. A combination of biological and socioeconomic factors make such management necessary if the long-term integrity of the condor roost is to be adequately maintained. These are as follows:

- 1) Blue Ridge is an important roost located close to nesting and foraging areas. Both the historic record and recent surveys by the National Audubon Society, the Condor Research Center (CRC), California Department of Fish and Game (CDFG), and U.S. Bureau of Land Management (BLM) have confirmed frequent use by condors from June through August. Periodic use of the roost throughout the rest of the year is suspected.
- 2) A variety of human uses in the Blue Ridge area has the potential to conflict with condor use. Activities occurring close to the roost include vehicle use of nearby roads, seasonal and permanent family dwellings, communication tower operation, hunting, and sight-seeing. Furthermore, such human activities on Blue Ridge and on adjacent areas are likely to increase if

projected growth patterns are realized (see below).

3) The Foothill Growth Management Plan (TCBPD 1981), developed by Tulare County to direct economic growth in the foothill region, designates the Tule River Development Corridor for future concentrated development. This corridor includes part of the Tulare County Rangelands Critical Habitat and comes within one mile of the Blue Ridge Critical Habitat.

4) Land ownership at Blue Ridge is complex. There are three principal private owners and four public owners (BLM, CDFG, U.S. Fish and Wildlife Service (USFWS), and U.S. Forest Service (USFS)), each having its own management policies. Two public agencies own no land but have management responsibilities in the area: the California Department of Forestry (CDF) handles fire control, and Tulare County has authority for zoning and permit granting on private lands.

Recognition of the significance of Blue Ridge to condors and of the management complexities has resulted in several agency directives which justify this HMP at the administrative level. Most of Blue Ridge is Critical Habitat designated by the USFWS (FR 41(187):41914-41916), requiring special protection by all agencies of the Federal Government. In that regard, the California Condor Recovery Plan recommends managing and administering the Blue Ridge Critical Habitat for condors (USFWS 1984), as well as eleven other actions specific to the Blue Ridge roost (see Appendix A).

The California Condor Recovery Team recommended in 1983 that "the USFWS, CDFG, BLM, and USFS cooperatively establish a Blue Ridge Planning Committee that will be charged with developing a Sikes Act agreement for the long-term management of the area" (Lehman and Olendorff 1984). The Sikes Act of 1960 (74 Statute 1052, as amended 1974) requires BLM, as well as all

Federal resource management agencies, to "Develop comprehensive plans in cooperation with State agencies to plan, develop, maintain, and coordinate programs for the conservation and rehabilitation of wildlife, fish, and game" (BLM Manual 6525.02A, Section 202(A)(1)).

Pursuant to the Recovery Team recommendation and the Sikes Act, a Blue Ridge Coordinating Committee was organized and first met in July 1984. In addition, a Memorandum of Understanding (MOU) was developed and signed by the USFWS, CDFG, BLM, and USFS in early 1985 requiring interagency cooperation in the development and implementation of this HMP and outlining respective agency responsibilities. This MOU appears in Appendix B.

The BLM, in the South Sierra Foothills Management Framework Plan (MFP) developed by the Caliente Resource Area, recommended and approved several additional management actions with regard to Blue Ridge. The most significant of these decisions was to designate BLM lands at Blue Ridge as an Area of Critical Environmental Concern (ACEC) (Federal Register, Vol. 50, No. 23, February 4, 1985, p. 4918; comment period ended April 5, 1985). The Blue Ridge HMP is intended to satisfy the required activity plan for the ACEC designation. An ACEC activity plan must resolve uses within the ACEC which are incompatible with the stated management objectives through a "schedule for conformance" (I.M. No. CA-81-48); however, there are currently no identified incompatible uses with regard to condor habitat management in the ACEC. Furthermore, the development of an interagency Sikes Act Habitat Management Plan was approved within the MFP. Planned actions under this HMP which satisfy the Management Framework Plan decisions are identified in Part III of this document.

B. Location and Acreage

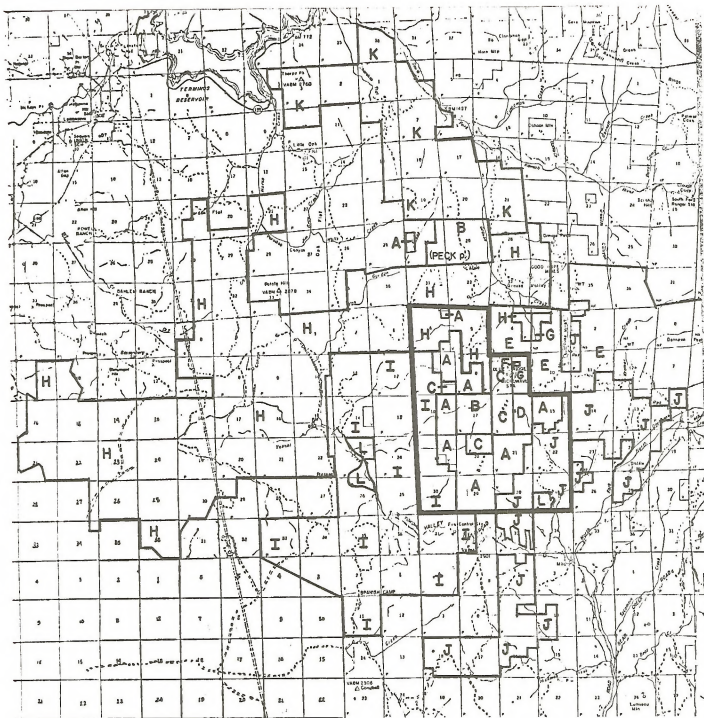
Blue Ridge is located in central Tulare County in the foothills of the Sierra Nevada Mountains approximately 13 miles east of the San Joaquin Valley. It is a large ridge-shaped mountain approximately 4.5 miles long and 3,000 feet from base to top, situated entirely within Township 19 South, Range 29 East, Mount Diablo Meridian. Elevation at its peak is 5,733 feet. Map 1 shows the Blue Ridge Critical Habitat in relation to the entire condor range.

The Wildlife Habitat Area (WHA) subject to this Plan is synonymous with the Critical Habitat zone, consisting of 17 Sections on and around Blue Ridge. However, additional adjacent public lands outside the WHA are considered to be integral to its management. These include USFS lands along the northeast boundary which contain potential roosting and bathing areas (parts of Sections 2, 3, 4, 10, 11, and 35), and the 880-acre Peck property recently acquired by the CDFG. While not directly affected by this HMP, these lands are cited under it as areas of peripheral concern and are subject to other management constraints.

The Blue Ridge WHA takes in approximately 11,100 acres of land. Table 1 summarizes land status and acreage within the Critical Habitat. Map 2 shows the locations of principal public and private holdings within and adjacent to the Critical Habitat. The ownership pattern of the E1/2 of Section 9 (the ridgetop area) is complex and is not entirely shown on Map 2. This parcel is primarily owned by the Hicks family and includes lands leased to operators of the communication towers on Blue Ridge. Parcels not owned by Hicks in the E1/2 of Section 9 are the CDF L.O. facility, the 20-acre Pearson property, 33 small lots along the county Blue Ridge road, and several other parcels.



MAP 1: Range of the California Condor
 (from: Condor Recovery Plan, 1984)



A U.S.B.L.M.

B C.D.F.G.

C U.S.F.W.S.

D State Land Commission

E U.S.F.S.

F Pearson

G Hicks

H Yokohl Valley Ranch Co. (Boston Ranch)

I Gill

J Battle Mtn. Ranch

K Sequoia Ranch Co.

L Other Private Owners

MAP 2: Land Ownership and Jurisdiction

Table 1: Land Status and Acreage of the Blue Ridge WHA

| <u>Land Administrator or Owner</u> | <u>App. Acreage</u> |
|--|---------------------|
| Public | |
| U.S. Bureau of Land Management | 3,268 |
| U.S. Fish and Wildlife Service | 897 |
| California Department of Fish and Game | 596 |
| State Lands Commission | 320 |
| California Department of Forestry | <u>1</u> |
| Subtotal | 5,102 |
| Private | |
| Boston Ranch | 1,603 |
| Gill | 1,997 |
| Battle Mountain Ranch | 1,832 |
| Hicks | 300 |
| Pearson | 20 |
| Cole | 160 |
| Griswold | 40 |
| Atmcree | 70 |
| Goode | <u>30</u> |
| Subtotal | <u>6,052</u> |
| Total | 11,154 |

C. Historical Perspective

The California Condor was federally listed as an endangered species in 1967 and State listed in 1971. In 1976 Blue Ridge was among nine condor activity areas determined to be Critical Habitat for the condor (USFWS 1976). The Blue Ridge Condor Critical Habitat Zone is delineated on Maps 1-4 in this HMP. The Tulare County Rangelands Condor Critical Habitat Zone, also determined in 1976, is immediately adjacent to the Blue Ridge Critical Habitat on its west and south sides (see Map 4).

In 1978 the USFWS conducted a feasibility assessment to determine how best to protect the Blue Ridge area from further private development (USFWS 1978). Of five alternatives considered, fee title acquisition of 1,700 acres of private lands adjoining BLM lands was recommended. Consequently, since

1981 about 1,496 acres of private lands at Blue Ridge have been purchased by State and Federal agencies: the 596-acre Section 17 acquired by CDFG in 1981 and designated an Ecological Reserve, and about 900 acres in Sections 7, 9, 16, and 20 acquired by the USFWS in 1982 which are administered as a National Wildlife Refuge (NWR) (Lehman and Olendorff 1984). These acquisitions secured most of the core roosting area and the greater part of the ridgeline. In addition, in July 1984 the CDFG purchased an 880-acre parcel about one mile north of the Critical Habitat boundary (Jurek pers. comm. 1984). This is called the Peck property consisting of Section 29 and part of Section 30 (T. 18S., R. 29E.).

Systematic research at Blue Ridge detailing condor use, human use, and habitat conditions was first conducted in 1980 and continued in 1983, 1984, and 1985 (see Part II, RHM-1).

D. Existing Plans and Management Constraints

Plans which direct conservation and management efforts at Blue Ridge include the updated California Condor Recovery Plan (USFWS 1984) and the draft Management Plan for the Blue Ridge Ecological Reserve (CDFG 1983), developed for CDFG's Section 17 acquisition. Another CDFG management plan will be prepared for the newly acquired Peck property (Kimple pers. comm. 1985).

Management constraints include the Federal Endangered Species Act of 1973 and its Critical Habitat provisions, which are important safeguards against degradation of condor habitat on federal lands at Blue Ridge. The new California Endangered Species Act, effective January 1, 1985, provides similar protections for condors at the State level. The BLM Manual (6840.06, 11-09-76) directs that it is Bureau policy to conserve federally and

State-listed endangered or threatened animals and to utilize Bureau authorities in furtherance of the purposes of the Endangered Species Act and similar state laws. BLM must also provide for the protection and management of any officially determined Critical Habitat (BLM Manual 6840.04F5, 11-09-76).

At the county level, the entire Blue Ridge WHA is zoned "AF" (Agricultural-Foothill) which is "...an exclusive zone for intensive and extensive foothill agricultural uses and for those uses which are a necessary and integral part of intensive and extensive foothill agricultural operations" (Tulare County Ordinance No. 2407, effective 03-26-81). This zoning ordinance tends to maintain the open space character of Blue Ridge and prevent intensive development. Furthermore, construction and operation of communication towers on Blue Ridge require permits from the Tulare County Building and Planning Department.

E. Geology

The foothill belt of the Sierra Nevada Mountains is 5 to 12 miles wide, beginning at the San Joaquin Valley and merging with increasing relief into the higher elevations to the east. The Tulare County foothill region ranges from 600 feet in elevation at the edge of the Valley to 6,840 feet at Case Mountain (TCBPD 1981).

Locatable mineral development potential in the Blue Ridge area is expected to be low, based on the prevalence of plutonic rock and on the lack of past or present mining activity. Leasable minerals probably do not occur in this geologic environment. Salable minerals, although present, are too inaccessible to be marketable.

F. Soils

Soils in the Blue Ridge area have developed from granitic bedrock and generally have sandy loam or loam textures. Typically, the soils are 10 to 80 inches deep. Many rock outcrops occur in the area, covering from 5 to 75 percent of the surface. Slopes range from 15 to 75 percent, with shallower, coarser-textured soils and rock outcrops generally more common on slopes of greater than 40 percent.

The soils are medium acid to slightly acid (pH 5.6-6.5) due to the acidic nature of the parent rock and moderately high rainfall (25-30 inches per year). The water holding capacity is quite variable due to the range in soil depth. There is a severe erosion hazard for these soils if they are exposed and unvegetated due to the moderate to steep slopes, moderately high rainfall, and loamy or moderately coarse textures. The organic matter content of the surface layer generally ranges from 1 to 3 percent by weight.

Soil mapping was conducted in central Tulare County by the Soil Conservation Service (SCS) from 1970 to 1977. The results of this project (Stevens 1982) include maps delineating the various soil types in the area and detailed descriptions of each type with their biotic and abiotic parameters. These documents are on file in the BLM Caliente Resource Area Office, Bakersfield, and should be referred to whenever soil characteristics significantly affect management decisions at Blue Ridge (e.g., erosion potential associated with prescribed burns).

G. Climate

The climate of the Blue Ridge area generally is one of hot, dry summers and cool, moist winters. During the summer months a high pressure system off

the west coast of California generally prevents precipitation in the foothill region. In winter this high pressure system is intermittent, giving way to Pacific storms which bring rainfall to the lower foothills and snow to the higher elevations and the Sierras (TCBPD 1981).

Average yearly rainfall in the foothill region increases with elevation, ranging from 10 inches at the base to 25 inches at 3,000 feet. Most precipitation falls between the months of November through April. Because it is relatively high in elevation for the foothill region (5,733 feet), the top of Blue Ridge gets occasional summer showers as well, originating from localized summer thunderstorms. Average yearly precipitation at the top of Blue Ridge has not been recorded.

The Tulare County foothills are in the San Joaquin Valley Air Basin, which due to light winds, atmospheric stability, excessive sunlight, and topographic characteristics is subject to potentially severe air pollution problems (TCBPD 1981). Since industrial, agricultural, and population growth is expected to continue, air pollution will probably worsen (TCBPD 1981). From the top of Blue Ridge air quality is frequently poor--very hazy and with curtailed viewing distances.

H. Wildlife

Though faunal inventories to date have been limited (see Part II, EM-1), the Blue Ridge WHA evidently supports a good abundance and variety of wildlife. Field work conducted in 1983 and 1984 has resulted in preliminary wildlife species lists for the WHA. Appendices C-F list bird, mammal, amphibian and reptile, and butterfly species, respectively, recorded to date.

One hundred and seven bird species were recorded in the WHA in 1983 and 1984, including sixteen species of hawks and owls. Most common raptors are the Turkey Vulture (Cathartes aura), Red-tailed Hawk (Buteo jamaicensis), and Golden Eagle (Aquila chrysaetos) (Lehman et al. 1985). These species use many of the snags at Blue Ridge as daytime perches, including the condor roost trees. The relative abundances of non-raptor bird species reported in Appendix C may reflect greater censusing efforts in the Yellow Pine forest areas of the WHA (Lehman pers. comm. 1985).

Relative abundances of mammals, reptiles, amphibians, and insects are not well known to date. However, numerous local landowners report that mule deer (Odocoileus hemionus) numbers are significantly down from 10 or 15 years ago (Gill, Ruth, Gutherie, Hicks pers. comm. 1985).

I. Vegetation

Munz and Keck (1959) divide California flora into 11 vegetation types and 29 plant communities. Three vegetation types occur at Blue Ridge: Coniferous Forest, Chaparral, and Woodland-Savannah. Plant communities are sub-divisions of the types which describe regional phases characterized by certain dominant species. The Coniferous Forest community at Blue Ridge is Yellow Pine Forest (Munz and Keck 1959). The Chaparral plant community is commensurate, Chaparral. The Woodland-Savannah plant community at Blue Ridge is Foothill Woodland.

These plant communities can be divided into fairly distinct smaller groups (Munz and Keck 1959). In a BLM-CDFG vegetation survey conducted in 1984 (Lehman et al. 1985), Blue Ridge plant communities were divided into "habitat types" based either on floristic characteristics or characteristics

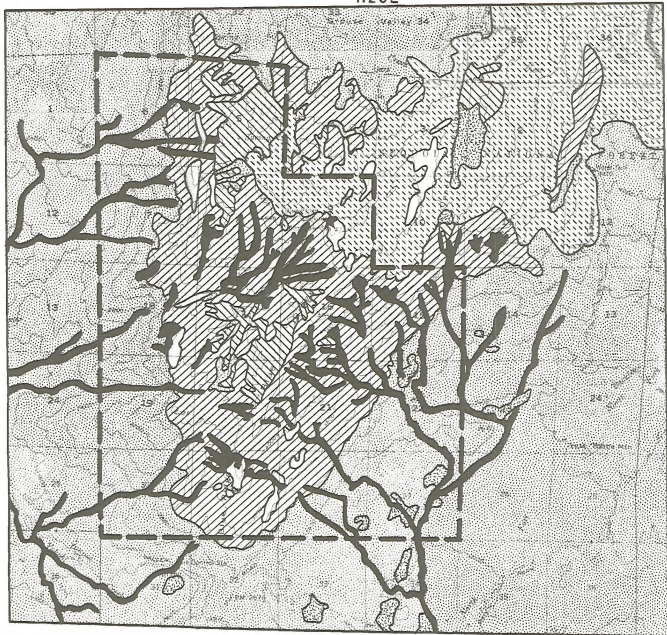
of the immediate physical environment. Three of these are commensurate with the communities: Yellow Pine Forest, Chaparral, and Foothill Woodland. The other habitat types identified on Blue Ridge by this survey are rock outcrop, riparian, and meadow.

Map 3 is a generalized vegetation map of the Blue Ridge WHA prepared from aerial photos, showing locations of these plant communities and habitat types. Appendix G lists all plant species identified on Blue Ridge during field work in 1983 and 1984.

The Foothill Woodland plant community occupies foothills and valley borders 400 to 3,000 feet in elevation, including the oak parklands of valley floors (Munz and Keck 1959). It consists of dense or open woodland with scattered brush and grassland between the trees. In the Blue Ridge Critical Habitat, this plant community is confined to the lower flanks of the mountain 2,800 feet and below and to adjacent valleys. It is quite homogeneous except for long finger-like riparian strips. Plant species common in the Foothill Woodland areas of Blue Ridge include blue oak (Quercus douglasii), Sierra live oak (Q. wislizenii), common buck-brush (Ceanothus cuneatus), California laurel (Umbellularia californica), California buckeye (Aesculus californica), and several species of grasses.

Chaparral is the most common plant community on Blue Ridge. Except for riparian corridors, Chaparral dominates the topography from about 2,800 to 4,800 feet in elevation. Above 4,800 feet it continues to be well-represented on the south and west facing slopes up to the edge of the ridgetop (5,700 feet). Characteristically, much of the chaparral on Blue Ridge is extremely dense, and in the dry summer months it creates a considerable fire hazard. Species found commonly in this plant community include chamise (Adenostoma

R29E



LEGEND

- ★ Lookout Tower
- Critical Habitat Boundary
- ▨ Foothill Woodland
- ▧ Chaparral
- ▩ Yellow Pine Forest
- ▨ Black Oak Woodland
(variety of Yellow Pine Forest)
- Riparian
- Rock Outcrop
- ▤ Meadow

Contour Interval 80 Feet

1 1/2 0 1 Mile

SCALE: 1:62,500

BLUE RIDGE AREA
PLANT COMMUNITIES
AND
HABITAT TYPES

MAP 3

fasciculatum), mountain mahogany (Cercocarpus betuloides), chaparral whitethorn (Ceanothus leucodermis), common buck-brush, Indian manzanita (Arctostaphylos mewukka), mariposa manzanita (A. mariposa), chaparral honeysuckle (Lonicera interrupta), and canyon oak (Quercus chrysolepis) (Lehman et al. 1985).

The Yellow Pine Forest plant community dominates at the ridgetop and at higher elevations in the Blue Ridge vicinity. At lower elevations it is common in riparian corridors and on north-facing slopes. Indicator species of this community include Ponderosa (Yellow) pine (Pinus ponderosa), sugar pine (P. lambertiana), incense cedar (Libocedrus decurrens), black oak (Quercus kelloggii), white fir (Abies concolor), mountain misery (Chamaebatia foliosa), deer-brush (Ceanothus integrerrimus), Sierra gooseberry (Ribes roezlii), and Indian manzanita (Munz and Keck 1959). These are found in abundance in the Blue Ridge Yellow Pine Forest along with numerous grasses and annual herbs (Lehman et al. 1985).

A variety of the Yellow Pine Forest plant community occurs at Blue Ridge on a few warm slopes, plateaus, and shallow canyons. This consists of open woodland composed primarily of black oaks with grasses and shrubs between the trees. It resembles the Foothill Woodland in structure, but because the predominant black oak is an indicator species of the Yellow Pine Forest, it is classed in the latter plant community and habitat type (Lehman et al. 1985).

The riparian zones on Blue Ridge, consisting of a few streams, springs and moist canyons, contain numerous plant species found elsewhere in the Critical Habitat (e.g., Yellow Pine Forest species). However, a few species identified on Blue Ridge occur in the riparian habitat type exclusively.

These include scarlet monkeyflower (Mimulus cardinalis), common large monkeyflower (M. guttatus), northwest crimson columbine (Aquilegia formosa), Sedge (Carex sp.), tule cat-tail (Typha domingensis), Broad-leaved cat-tail (T. latifolia), Common Rush (Juncus effusus), Sierra rush (J. nevadensis), and California nutmeg (Torreya californica) (Lehman et al. 1985).

Two endangered plants occur in the Blue Ridge area. The Kaweah brodiaea (Brodiaea insignis) and Springville Clarkia (Clarkia springvillensis) are State listed as endangered and are under review by the USFWS for Federal listing. The Kaweah brodiaea is expected to be federally listed soon (Shevock pers. comm. 1985). Both species occur exclusively in the Foothill Woodland plant community. The Kaweah brodiaea grows in clay-like soils and is known along the South Fork of the Kaweah River. The Springville clarkia grows in sandy, gravelly loams; it is known along the Balch Park and Bear Creek Roads in the Tule River valley and elsewhere. Neither species has been recorded within the Blue Ridge WHA; however, the Kaweah Brodiaea was recently discovered on the Peck property (Jurek pers. comm. 1985).

J. Livestock

The Foothill Woodland plant communities surrounding Blue Ridge are productive livestock rangeland. Establishment of the Tulare County Rangelands Condor Critical Habitat Zone (USFWS 1976) recognizes the importance of these areas as condor foraging grounds (see Map 4). Yokohl Valley and Frazier Valley, both used extensively for livestock grazing, are contained within this Critical Habitat. The Tule River valley to the east and southeast of Blue Ridge, Grouse Valley and Upper Grouse Valley to the north of the ridgetop, and the South Fork of the Kaweah River vicinity, also to the north, are additional



Figure 1. Viewing west from the L.O. tower. Note the Chaparral zone in the foreground, the riparian corridor in the center, and the Foothill Woodland zone in the background.

areas used for livestock grazing.

Several livestock operators run sizeable cattle herds in the areas surrounding Blue Ridge. These are Battle Mountain Ranch, Yokohl Valley Cattle Company (Boston Ranch), the Gill Ranch, and the Sequoia Ranch Company. Parts of three of these ranches are located within the WHA (see Map 2). The numbers of livestock present on these ranches varies from 300 to 6,000. However, due to the topographical and vegetative features of Blue Ridge, relatively few cattle occur inside the WHA. A combination of dense chaparral and rugged terrain over most of Blue Ridge prevents livestock grazing, and creates an effective natural barrier against incidental drift of cattle from the lower to the higher elevations. The few cattle which do occur within the WHA are principally confined to areas below about 3,000 feet on the western slope of Blue Ridge (Gill property), and the Battle Mountain Ranch in the southeast corner.

There are no grazing allotments on public lands in the WHA; however, the USFS maintains two grazing allotments immediately adjacent to it. These are summarized in Table 2. Also, the Peck property was leased for grazing by its former owner and may continue to be leased by the CDFG (Crew pers. comm. 1985).

Table 2: USFS Grazing Allotments Adjacent to the WHA

| <u>Allotment</u> | <u>Sections</u> | <u>Acres</u> | <u>AUM's</u> | <u># Head</u> | <u>Use Dates</u> |
|---------------------|------------------------------|---------------------------|--------------|---------------|------------------|
| North Grouse Valley | 35, 36 | 910 USFS | 163* | 35 | 5/1-8/15 |
| South Grouse Valley | 1, 2, 3, 6, 7, 10, 11, 12 | 4,160 USFS 580 private | 241* | 40 | 3/16-7/31 |

*Cow-calf

K. Water Resources

Because of dry summers and topography, water is not abundant on Blue Ridge. Except for small tributaries, all major rivers and creeks in the area, such as Yokohl Creek, the South Fork of the Kaweah River, and the North Fork of the Tule River, occur at low elevations outside the WHA.

The Kaweah topographic map (1957, 15 minute series) shows six intermittent streams in the WHA. Numerous other small canyons occur within the WHA which contain intermittent streams not shown on the Kaweah map. These riparian corridors are shown on Map 3 in the HMP.

Numerous springs which tap groundwater supplies also occur within the Critical Habitat. A survey conducted by BLM personnel in the Blue Ridge area in 1984 located seven such springs on BLM lands. An additional five springs near BLM lands were located during this survey but not examined in detail. Two springs indicated on the Kaweah topographic map occur along the Blue Ridge fire control road. Thus, 14 springs are currently known in or near the WHA.

Two known condor drinking and bathing areas exist in the WHA. The Cabin Springs pools were used by condors in 1980 (Baldrige et al. 1980) and possibly in early 1984 (Lehman pers. comm. 1985). These pools are not considered greatly suitable for condor use in their current condition but are used frequently by other wildlife (Lehman et al. 1985). An excellent drinking and bathing area, known as Cats Paw pools, occurs along a creek which flows over one-quarter mile of bare rock, forming numerous shallow solid-bottomed pools. Condors were observed landing in this area on 16 June 1984 and the creek had a moderate water flow as late as 5 September 1984 (Lehman et al. 1985).

A third suspected bathing area exists on lands administered by the USFS

where another intermittent creek flows over bare rock. Othel Pearson (pers. comm. 1984), a local landowner, reported seeing condors here in the early 1980's. Finally, water resources on Blue Ridge include a small impoundment created in 1977 as part of the so-called Black Oak Canyon Wildlife Development Project (Lea pers. comm. 1984). It is not considered suitable for condors but is probably used by other wildlife.

L. Human Population and Use of the Area

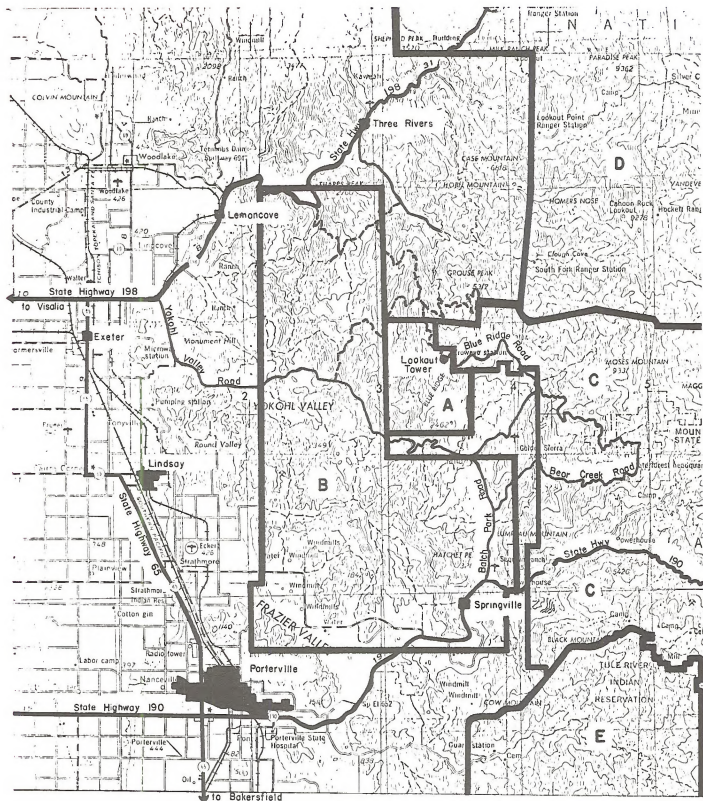
Blue Ridge is located in an area of generally dispersed human population. The nearest population centers are the villages of Springville, Three Rivers, and Lemon Cove. The nearest cities are Visalia and Porterville located in the Central Valley to the west. These are summarized in Table 3. Map 4 shows their relation to the Blue Ridge WHA and the locations of principal roads in the vicinity.

Table 3: Communities Near Blue Ridge

| <u>Town or City</u> | <u>Air Miles From Ridgertop</u> | <u>Direction</u> | <u>Population</u> |
|---------------------|---------------------------------|------------------|-------------------|
| Springville | 11 miles | S | 1,023* |
| Three Rivers | 11 miles | NNW | 1,198* |
| Lemon Cove | 12.5 miles | NW | 288* |
| Visallia | 23 miles | W | |
| Porterville | 17.5 miles | SW | |

*1976 census (TCBPD 1981)

In 1976 Springville, Three Rivers and Lemon Cove accounted for 43 percent of the total population of the Tulare County foothill region (TCBPD 1981). Another population center in the proximity of Blue Ridge exists along the Balch Park Road, which runs near the southeast base of Blue Ridge and is lined with residences and small ranches. A few principal family residences



- A Blue Ridge Critical Habitat
- B Tulare County Rangeland Critical Habitat
- C Sequoia National Forest
- D Sequoia National Park
- E Tule Indian Reservation

- Towns and Cities
- State Highways
- County Roads
- - - CDF/Private Fire Control Roads
- Lookout Tower

Scale 1:250,000

MAP 4: Blue Ridge Vicinity



Figure 2. One of the Cats Paw Creek pools. These pools have been used by condors for drinking and bathing.



Figure 3. The largest Cabin Springs pool. These pools have been used in the past by condors but could be improved.

are located in the Blue Ridge WHA itself in the southeast corner. The total estimated population for the foothill region as of April 1980 was 6,930 persons (TCBPD 1981).

Principal land uses within the Tulare County foothill region consist of intensive (citrus, olives, plums) and extensive (grazing) agriculture. Agricultural land accounts for approximately 92.8 percent of all land in the foothill region (569,703 acres) (TCBPD 1981). Lands zoned for residential uses account for 6.9 percent (42,647 acres) of the total foothill land area, and commercial land uses comprise less than one percent (TCBPD 1981).

Human use of the Blue Ridge WHA is primarily limited to peripheral areas, because most of the central roosting area and the ridgelines are rugged, brushy, and without driveable roads. These peripheral uses consist of vehicle use of the county Blue Ridge road, the ridgetop area, and the Blue Ridge fire control road, livestock grazing, and some hunting.

Most human activity is centered on the top of Blue Ridge. At the southwest end of the ridgetop are a CDF fire lookout tower and cabin (currently being transferred to CDFG administration) and approximately ten communication towers arranged in a loose cluster. On the northeast end of the ridgetop are about seven summer homes, which line the county Blue Ridge road on either side for a little over one-quarter of a mile. One of these, the Pearson residence, became a permanent family dwelling in early 1985.

From June 11 to November 10, 1984, 523 vehicles were counted on this ridgetop area or on the Blue Ridge fire control road, an average of 3.8 vehicles per day (Lehman et al. 1985). Table 4 summarizes this vehicle use data. Private parties generally consisted of people using the summer

Table 4: Summary of Vehicle Use of Blue Ridge, June - November 1984
(From Lehman et al. 1985)

| | <u>#</u> | <u>% of Total</u> |
|--|----------|-------------------|
| Private vehicles | 250 | 47.8 |
| Vehicles of tower maintenance personnel | 179 | 34.2 |
| Government vehicles | 92 | 17.6 |
| Cars | 130 | 24.9 |
| Trucks | 314 | 60 |
| Other vehicle types | 79 | 15.1 |
| Vehicles on ridgetop area only | 457 | 87.4 |
| Vehicles on Blue Ridge fire control road | 66 | 12.6 |
| Average # of vehicles arriving on the ridgetop per weekday . . . | 3.7 | -- |
| Average # of vehicles arriving on the ridgetop per weekend day . | 4.1 | -- |

homes and recreational users who drove up to admire the view. Government vehicles used both the ridgetop and the Blue Ridge fire control road. Maintenance vehicles invariably were confined to the ridgetop. Generally, conflicts between vehicle use of Blue Ridge and condor use were found to be few. Hiking in the WHA also appeared to be minimal.

Most hunting observed on Blue Ridge in 1984 occurred after the main condor use period and on USFS lands at least one mile from the roost area (Lehman et al. 1985). Hunting in the area increased sharply with the beginning of the regular deer season on September 22. Only two condors were observed at the roost during all of September, the last on the 19th. On only four occasions in 1984 were hunters observed in or near the core roosting area, all after September 21.

M. Cultural Resources

Only a limited formal assessment of cultural resources at Blue Ridge has been conducted to date. In 1984 a BLM archaeologist implemented a cultural survey on a 1-acre project site resulting in no cultural resource

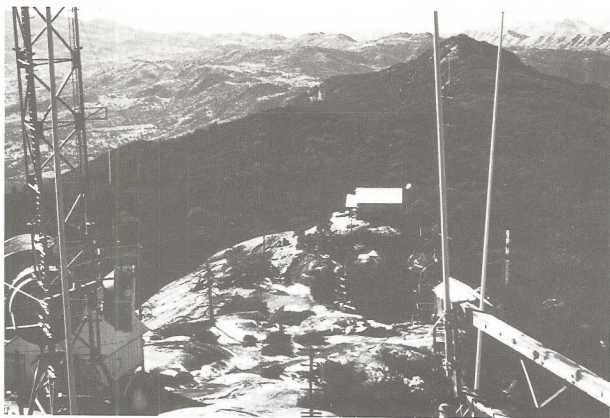


Figure 4. Top of Blue Ridge from the L.O. tower viewing southwest along ridgeline. Note communication facilities.

recordations (BLM 1984). In 1959 the University of California recorded the remains of an aboriginal burial site and associated artifacts on private lands at Blue Ridge (Smithsonian Trinomial Site #Tul-113).

Historical cultural resources known in the WHA include two old cabins. One of these is a log cabin which evidently was used as a schoolhouse in the homesteading days (Harvey Ruth pers. comm. 1985). A second cabin, known as the Hayes Hilton after a previous landowner, stands near the Cats Paw pools (Lehman et al. 1985). The period of construction of these cabins is currently unknown.

According to several sources, prehistoric cultural resources are also evident on Blue Ridge. Bedrock mortar features are reported in a small drainage just north of the schoolhouse cabin. In this same area is a possible temporary shelter and associated midden (Sheppard pers. comm. 1984). Finally, Lee Gill (pers. comm. 1985), a local landowner, reports observing bedrock mortars and pictographs in the WHA.

II. MANAGEMENT OBJECTIVES

In general, objectives of this HMP are as follows: Primary objective is to maintain and improve condor roosting and bathing habitat in the Blue Ridge Critical Habitat Zone by monitoring management requirements, restricting human activity, and conducting needed habitat enhancement measures. A secondary objective is to maintain and improve condor feeding habitat in the critical habitat vicinity through cooperation with private ranchers, and through management of public lands for livestock grazing where conflicts with primary objectives do not occur. Such management will indirectly benefit most other wildlife species within the WHA, through protection and enhancement of overall wildlife habitat conditions and diversity.

In this section, these management objectives are detailed and divided into five categories. Within each category one or more objectives are stated, preceded by background information describing their purpose and need. Each objective is identified by a number composed of the capitalized acronym for its management category and a numeral. The planned actions which are designed to accomplish these objectives appear in Section III. The planned actions are divided into the same management categories and each bears a reference number corresponding to its appropriate category and objective. In addition, each planned action bears a lower-case letter to identify it individually.

The signatory agencies to this HMP are committed to these management objectives and to carrying out these management actions to 1) meet the needs of the remnant, existing condor population in the short-term, whether or not the area continues to be used by these birds, and 2) to meet the long-term needs of a future, enlarged condor population that is anticipated to exist in

coming decades through captive-breeding and reintroduction programs. In anticipating the long-term restoration of a wild population and expected increase in use by condors of the Blue Ridge area, the signatory agencies will keep this HMP fully in force, even if the wild condor population becomes extirpated before initiation of the reintroduction program.

Roosting Habitat Management (RHM)

RHM-1: Monitoring

Background. Systematic research at Blue Ridge has been limited in the past. Until about 1980 most data concerning condor use were collected by the CDF fire lookouts, who occupied the CDF tower only from June through late September or early October. Condor use data were collected in 1980 and 1983 through 1985 by various researchers (Baldrige et al. 1980, Burns and Norris 1983, Benjamin et al. 1983, Lehman et al. 1985) but also from June through October or November only. Thus, a significant gap exists in the data regarding condor use of Blue Ridge for the months October through May, though it is thought that condor use during this period is quite low relative to summertime use (Lehman et al. 1985). Quantified data regarding human use of Blue Ridge is scant except for the field seasons from 1983 to 1985.

Because of these limitations, it is difficult to assess the seasonal management needs at Blue Ridge, and to determine needed long-term management strategies with regard to human use (e.g., whether to enact hunting and airspace closures). Furthermore, it is possible that the patterns of human use will change in coming years, considering projections for economic growth in the foothill region. It must also be expected that habitat characteristics important to condors, such as snag availability, will change through time.

OBJECTIVE. Assess current and future management needs at Blue Ridge through monitoring of condor use, human use, and habitat conditions.

RHM-2: Protection

Background. Condor roosts are typically located in isolated or at least semi-secluded areas (USFWS 1979). Parts of Blue Ridge have already experienced considerable development and human pressure, though the roost trees themselves remain relatively undisturbed. It is important that the WHA, especially the core roost area, is maintained with a minimum of additional habitat alterations and intrusions of vehicles and persons.

Based on recent condor use patterns, the core roost area is defined to include Sections 8, 16, 17, and the west 1/2 of Section 9. Past and present human impacts in this area appear to be minor. The Blue Ridge fire control road runs through the west 1/2 of Section 9 and barely crosses the northeast corner of Section 8, where it passes within one-quarter mile of the Twin Snags roost trees. This road is gated at the ridgetop and vehicle use is limited to private landowners and the CDF. The Cabin Springs loop in Section 5 connects the fire control road with the Cabin Springs Snag and pools. Use of this road is usually limited to the landowner, Boston Ranch. Finally, the so-called Black Oak Canyon road departs the ridgetop area in two legs and runs southwest through the WHA to the Yokohl Valley Road, passing close to two known roost trees. Public vehicle access to this road is limited by gates at or near all entry points. Also, parts of the north legs and the southern end on Gill property are eroded and impassable to most motorized vehicles. These roads are currently open to foot access where they cross public lands, except for USFWS property which as a National Wildlife Refuge is closed to trespass. The Blue Ridge NWR is also the only public lands in the WHA currently closed to hunting.

Aside from the roads, the core roost area remains in a largely pristine

state. It is buffered on all but the northeast side by steep, brushy terrain and large tracts of private lands. However, direct or overflow impacts from this northeast side (the ridgetop) potentially could undermine roost integrity at any time.

Developments and human pressure surrounding the core roost area are more intensive, but are either of minimal impact (e.g., livestock grazing) or are capable of restrictive management (e.g., use of the ridgetop). Some past and potential impacts to these parts of Blue Ridge are described below.

Maintenance, repair, and construction of communication towers on the ridgetop are possible sources of noise disturbance to the roost. Excessive noise levels could be generated by construction itself and by use of heavy equipment and helicopters. Construction of a new tower occurred as recently as 1981 (Lehman pers. comm. 1985). Another source of noise disturbance from the towers are emergency generators which operate periodically. The KMPH facility has a generator to which roosted condors showed visible reaction in 1984 (Lehman et al. 1985).

Illegal hunting reported by local landowners (Gutherie, Gill, Ruth pers. comm. 1985) may occur year round and in areas adjacent to and within the Critical Habitat. The problem areas cited by these persons are Boston Ranch lands northwest of the ridgetop and the Gill property along the Yokohl Valley Road. Illegal hunters could access the core roost area from both these areas.

Prescribed burns occurred in the Blue Ridge area in 1983 and 1984, necessitating use of helicopters, reconnaissance aircraft, air tankers and heavy trucks within and adjacent to the WHA. Also in 1984 a wildfire occurred on Boston Ranch lands near Blue Ridge, during which air tankers were used. However, condors were present at the roost for part of both 1984 incidents and

showed no apparent alarm (Lehman et al. 1985).

OBJECTIVES. Maintain the current level of human activity in the core roost area and identify where further protective measures are required. Utilize multi-agency involvement and cooperation in regulating human uses outside the core area and adjacent to the WHA.

RHM-3: Maintenance and Enhancement

Background. Availability of suitable roost trees is of obvious importance if Blue Ridge is to remain suitable for condor use. Based on research in 1983 and 1984, condors using Blue Ridge evidently prefer dead Ponderosa pines approximately 22 to 40 meters in height with large widely-spaced branches; partially dead and living trees occasionally are also used, primarily by juveniles (Lehman et al. 1985). Other parameters of roost trees used at Blue Ridge (e.g., slope aspect, percent of slope, elevation, and distance from a ridgetop) varied considerably, indicating that condors will utilize trees under a wide range of conditions. Protection from wind and availability of descending terrain for easy departure are other factors which affect roost selection (Koford 1953).

Most roosting in 1983 and all roosting in 1984 occurred in four trees: Left and Right Twin Snags, which stand adjacent to each other, Cove Snag, and Section 17 Snag (Lehman et al. 1985). Of these, Left Twin Snag was most frequented, receiving about 65 percent of all use in both years. Right Twin Snag, Cove Snag and Section 17 Snag received 6 percent to 18 percent of use in both years. Other trees used for roosting at least once during these years are Flat Top Pine, the Pine behind Cove Snag, Section 9 Snag (recently fallen), Section 3 Pine, Section 35 Snag, and possibly Cabin Springs Snag.



Figure 5. Section 18 viewed from Section 19. Note the rugged character of public lands which surround the core roost area and act as a buffer zone.



Figure 6. Top of Blue Ridge viewing northeast from core roost area. It is from the ridgetop that most disturbances to the roost might originate.

However, three of the favored trees, Twin Snags and Cove Snag, have been dead 20 years or more and have nearly reached or even surpassed their statistical life expectancy (Lehman et al. 1985).

Availability of suitable nearby bathing pools is also important to maintaining the Blue Ridge roost. Condors prefer clear, clean pools one to six inches in depth with solid or sandy bottoms; pools should also be at the tops of inclines so that condors can take off easily (Koford 1953).

OBJECTIVE. Assure continued availability of suitable roost trees and bathing pools through appropriate silvicultural and manipulative techniques.

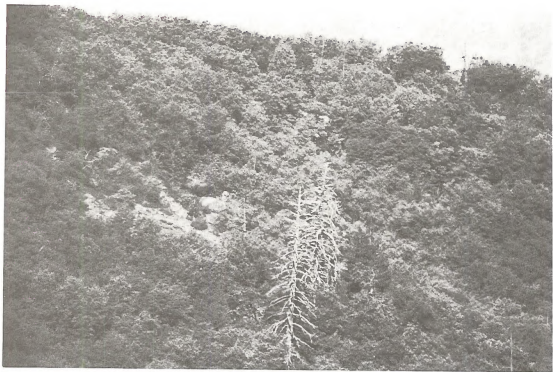


Figure 7. Twin Snags roost trees. Note their large size in relation to the surrounding forest.



Figure 8. Two condors sunning in Left Twin Snag.

Land Acquisitions and Cooperative Agreements (LACA)

LACA-1: Habitat Protection on Private Lands

Background. Recent land acquisitions at Blue Ridge by the USFWS and CDFG secured most of the core roost area in public ownership. However, part of Section 8 containing Twin Snags, Flat Top Pine, and possibly Cabin Springs Snag remain privately owned (Boston Ranch). Certain private lands just adjacent to the core roost area contain potential roost snags (the NW1/4 of Section 9), or are important because of proximity to roost snags (Section 5). Boston Ranch has no plans for development in Sections 5 and 8 (Ruth pers. comm. 1985). Nor are there plans for development on the Hicks property in the NW1/4 of Section 9 (Hicks pers. comm. 1985). Nevertheless, activities such as wood-cutting or selective timber-falling may occasionally cause real or potential impacts to the roost. More severe impacts could develop if activities and uses on these private lands change.

Other adverse impacts to condors could develop if grazing lands in and near the WHA are eventually converted to other uses, such as sub-divisions. Though peripheral to the core roost area, their value as feeding grounds might be lost and their integrity as flight routes for condors approaching and departing the roost could be affected.

OBJECTIVE. To protect and enhance habitat on private lands within the WHA, develop and maintain cooperative management approaches with landowners.

LACA-2: Acquisitions

Background. No further land acquisitions at Blue Ridge are planned by the government at this time. So long as relations with local landowners remain cooperative and current land-use plans do not change, further acquisition attempts are not considered necessary.

In the long-term view, however, it is probable that some private lands in the WHA will be offered for sale. If this occurs two considerations arise in terms of management of the WHA: first, it could lead to an accompanying change in land use not conducive to use by condors; second, it may be a prime opportunity for agencies to acquire important roosting or feeding habitat. This HMP should include measures whereby appropriate agencies are alert to such changes in land ownership and are prepared to secure offered lands if deemed necessary.

It is known that several landowners are considering sale of private lands in the WHA at this time. Lee Gill and Glenn and Betty Gill (pers. comm. 1985) are considering sale of their holdings on the west side of the Blue Ridge area. These lands would probably but not necessarily go to other ranching interests. The Hicks family wishes to sell 200 acres in the SE1/4 of Section 9 (Hicks pers. comm. 1985). This parcel is on the southeast side of the ridgetop well removed from the roost area and is in an area of previous summer home development.

OBJECTIVE. Monitor changes in ownership of private lands and acquire lands being sold as feasible and necessary.

LACA-3: Lookout Facilities

Background. The Blue Ridge CDF fire lookout tower and cabin were constructed in the 1930's. These facilities are still in excellent condition and include a garage, outdoor toilet, three water storage tanks with a 1000-gallon capacity, a propane gas tank, and electrical, phone, and gas hook-ups. The lookout tower is an excellent observation point. Roughly 50 percent of the WHA is visible from it, including all known roost trees, the ridgetop area, and much of the Blue Ridge fire control road. The CDF cabin offers comfortable living quarters for Blue Ridge surveillance and management personnel.

The CDF retired the Blue Ridge lookout facilities in 1982 and planned to sell or dismantle them. In the interim they were used by the 1983 and 1984 field research teams, and condor management agencies recognized that loss of the facilities would significantly undermine the Blue Ridge management process. The CDFG requested that the facilities be transferred to its administration. This transfer is now being undertaken and should become effective by early 1986.

OBJECTIVE. Maintain the physical integrity and utility of the Blue Ridge lookout facilities for continued operation by management and surveillance personnel.

Ecosystems Management (EM)

EM-1: Monitoring of Flora and Fauna

Background. The Federal Land Policy and Management Act of 1976 (PL 94-579) states in the Declaration of Policy that "The national interest will best be realized if the public lands and their resources are periodically and systematically inventoried and their present and future use is projected through a land use planning process coordinated with other Federal and State planning efforts."

Information available to date on the occurrence and distribution of plant and animal species within the WHA includes the following: small mammal trapping records from 1984; daily and monthly occurrence of bird species for 1984 and 1985 (not location-specific); detailed sighting lists of birds, mammals, and reptiles for 1984 and 1985; deer spot kill maps and possibly some limited bobcat trapping records; and overall lists of birds, mammals, reptiles and amphibians, butterflies, and vascular plants (Appendices C-G) present in the WHA from 1983 and 1984.

Objective. Inventory and monitor all wildlife use and vegetation within the WHA.

EM-2: Condor Feeding Habitat

Background. Most condor foraging occurs on private rangelands in Tulare, Kern, and San Luis Obispo counties, typically on relatively large ranches with low levels of human activity (USFWS 1984). The principal food is dead livestock. However, the economics of cattle and sheep ranching have

deteriorated in recent decades and conversion of rangeland to other more lucrative uses is increasing in the condor's range.

The preservation of remaining livestock economies is considered essential to the survival and recovery of the wild condor population. The California Condor Recovery Plan recommends preservation of key feeding areas near nests and roosts (USFWS 1984). With regard to Tulare County, the Recovery Plan makes the following recommendation: "Preserve foothill rangelands in southern Tulare County between Lake Kaweah and White River as feeding habitat" (USFWS 1984). This includes the Blue Ridge area. The Recovery Plan also recommends encouraging land managers to leave dead livestock on the range to be available to foraging condors.

Most of the livestock operators in the Blue Ridge area leave dead animals on the range (e.g., Guthrie, Ruth pers. comm. 1985), and it is believed that condors roosting at Blue Ridge sometimes forage nearby (Lehman et al. 1985). Given the clear mandate to protect and preserve condor feeding habitat, and the significant levels of livestock grazing occurring near Blue Ridge, it is incumbent upon this HMP, where possible, to take positive measures toward management of this resource.

OBJECTIVE. Encourage livestock grazing operations that benefit condors and improved habitat conditions.

Fire Management (FM)

FM-1

Background. It has been shown that in Baja California, where fire suppression is not practiced, Chaparral wildfires occur over less surface area and are less destructive than wildfires in southern California (Minnich 1983). This is because wildfires in Mexico are more frequent (821 as compared with 413 in California during the study period) and are allowed to burn naturally, thus gradually preventing excessive fuel (brush) build-up.

In southern California, however, fire suppression policies and efforts have been in effect for 70 years. Because of unnatural fuel build-up due to suppression of small fires, periodic outbreaks of extensive, uncontrollable wildfires occur which destroy important natural habitats and human properties. These tend to occur on a greater scale, in broader less-mosaic patterns, and in greater fire hazard seasons than wildfires in Mexico. Typical fire size in southern California during the study period was 10,000 acres, as compared with 4,000 acres in Mexico, and in nine years total acreage burned was 30 percent more in California (Minnich 1983).

Prescribed burning of decadent chaparral stands is one method of reducing fuel loading and the potential for these catastrophic wildfires. Land management agencies have been making increasing use of this technique in recent years, both to reduce fire hazards, and to improve wildlife habitat diversity and livestock forage conditions. In 1981 the California Department of Forestry initiated the Vegetation Management Program (VMP), a statewide cooperative agreement in which the CDF and private landowners jointly conduct

prescribed burns on a cost-share, pro-rated basis. Other government agencies become involved if their lands are included in these prescribed burns, either giving their approval or lending financial and logistical support as well. The VMP has identified over 30,000 acres in the southern Sierra for prescribed burning.

Cooperative burns between the CDF, BLM, and private landowners occurred within and adjacent to the WHA in 1983 and 1984. Many acres of heavy brush remain, however, which may benefit by prescribed burning. Techniques to protect the more sensitive resources within the WHA from fire, such as roost trees, should also be considered.

OBJECTIVE. Apply fire management principles as an integral part of protection, maintenance, and enhancement of habitat values throughout the WHA.

Guidelines for Land Use Authorization

LUA-1

Background. The critically endangered California Condor is the principal factor limiting use of public lands in the WHA, pursuant to the Endangered Species Act of 1973. As a condor use area and declared Critical Habitat, the WHA is subject to considerable restrictions with regard to activities by the Federal government.

Also affecting land use decisions in the WHA by the Federal and State governments and by private concerns are the National Environmental Policy Act of 1969 (NEPA) and the California Environmental Quality Act of 1970 (CEQA), both of which require mitigating measures when projects are expected to have significant environmental consequences.

Appendix H lists these and other laws which govern land use decisions at Blue Ridge and gives a brief explanation of each one.

Finally, the regulation of communication tower construction and operation will be aided by Tulare County building and operating permits and by lease restrictions imposed by the ridgetop landowner, the Hicks family.

OBJECTIVE. Ensure that all land use and actions within the WHA comply with legal restrictions and cooperating agency policies.

III. PLANNED ACTIONS

Planned actions are briefly stated in this section to outline the management strategies needed to accomplish the objectives. Details concerning the techniques, scheduling, and funding required to implement the planned actions appear in Sections IV. - VII. of the HMP. Some planned actions will require specific projects to be completed; these are detailed in the Project Schedule. Others are intended to monitor ongoing conditions in the WHA and are detailed in the Monitoring Schedule. The remaining planned actions specifically require coordination between the cooperating agencies and/or administrative actions. These are addressed in the Progress Report section, which details interagency cooperation and will be used to track progress of HMP implementation. The Implementation and Cost Schedule projects expected work months and funding required to implement the HMP for the first six years.

Roosting Habitat Management (RHM)

RHM-1: Monitoring

RHM-1a. Monitor condor use of the Blue Ridge roost and bathing pools.

RHM-1b. Monitor movements of radioed condors in the Blue Ridge area.

RHM-1c. Monitor human use of Blue Ridge, emphasizing hiking in the core roost area, recreational and vehicle use of the ridgetop, and vehicle use of the Blue Ridge fire control road.

RHM-1d. Monitor low-flying aircraft around Blue Ridge and condor response to aircraft.

RHM-1e. Monitor and compile a record of hunter use, hunter success, poaching, dog-running, and fur-trapping.

RHM-1f. Evaluate the condition of known roost trees and overall snag numbers in the WHA annually to identify roost availability.

RHM-1g. Monitor communications tower construction and maintenance.

RHM-1h. Monitor minerals related activities in and adjacent to the WHA.

RHM-1i. Survey property boundaries within the WHA for management and enforcement purposes.

RHM-2: Protection

RHM-2a. Maintain public vehicle closure of the Blue Ridge fire control road (#T-5).

RHM-2b. Close BLM lands to off-road vehicle use in the WHA.*

RHM-2c. Close the public lands in Sections 8, 16, 17, and the west 1/2 of Section 9 to all public entry 1 June - 15 September.

RHM-2d. If necessary to preclude firearms conflicts in the core roosting area, close the public lands within the WHA to non-hunting use of firearms or to hunting entirely.*

RHM-2e. Propose withdrawal of public lands in the WHA from hardrock mineral exploration and development.*

RHM-2f. Where construction or maintenance of communication towers could cause disturbance or hazards to condors, recommend appropriate measures to mitigate impact.

RHM-2g. Continue and if possible increase enforcement of hunting regulations on the ridgetop area, the county Blue Ridge road, and the Yokohl Valley road.

* Defined in the BLM South Sierra Foothills Management Framework Plan (MFP).

RHM-2h. Coordinate CDF fire air traffic and fire control road (#T-5) maintenance to avoid negative impacts to condors.

RHM-2i. Post all road access points in the WHA with raptor protection signs.

RHM-2j. As management status of the core roosting area is resolved, post closure signs as needed.

RHM-3: Maintenance and Enhancement

RHM-3a. Investigate feasibility of artificial reinforcement and support of Twin Snags. Coordinate with landowner if implemented.

RHM-3b. Create additional snags by girdling or topping living trees in suitable locations in the WHA.

RHM-3c. Plant future replacement roost trees in suitable locations in the WHA.

RHM-3d. Improve Cabin Springs pools for use by condors and other wildlife.

Land Acquisitions and Cooperative Agreements (LACA)

LACA-1: Habitat Protection on Private Lands

LACA-1a. Acquire no additional private lands at this time, but promote good relations with landowners by means of periodic contacts and information exchange to accomplish habitat protection objectives.

LACA-1b. Where specific projects planned by private landowners might jeopardize condor habitat, seek formal easements or cooperative agreements to reduce or eliminate impacts on a case-by-case basis.

LACA-1c. Where specific projects are desired by the government on private lands, seek verbal or written permission from the involved landowner to implement. Request administrative access to private lands when necessary.

LACA-2: Acquisitions

LACA-2a. Seek input from the landowners to ensure prior notification of sale of private lands within and adjacent to the WHA.

LACA-2b. Consider purchase of the right of first refusal on important private lands within the Critical Habitat. Sections 5 and 8 owned by Boston Ranch and the 20-acre Pearson property should have first priority.

Note: The above Planned Actions satisfy the BLM South Sierra Foothills MFP.

LACA-3: Lookout Facilities

LACA-3a. Develop a Cooperative Management Agreement between the BLM and CDFG to coordinate furnishing and maintenance of the lookout tower facilities.

Ecosystems Management (EM)

EM-1: Monitoring of Flora and Fauna

EM-1a. Record all species observations and supply information to BLM INICS system and California Natural Diversity Data Base (CNDDB).

EM-1b. Document reptile and small mammal occurrence under CDFG Scientific Collecting Permits.

EM-1c. Conduct annual deer surveys.

EM-1d. Coordinate Christmas bird count with local Audubon chapter.

EM-1e. Quantify species composition in each plant community and habitat type through censusing techniques.

EM-2: Condor Feeding Habitat

EM-2a. Encourage maintenance of grazing permits and leases in or near the WHA, except in the core roost area and Cabin Springs.

Fire Management (FM)

FM-1a. Develop a fire management plan for the WHA which addresses pre-suppression needs, including prescribed burn recommendations, and suppression strategies in case of wildfire.

FM-1b. Continue cooperative burn program with private landowners and CDF.

FM-1c. Support CDF-private landowner plans for prescribed burning of selected portions of the Peck property and Sequoia Ranch.

FM-1d. Monitor effects of prescribed burns to determine recovery rates and plant species composition.

FM-1e. Develop buffer zones around roost trees by clearing vegetation in a 15-foot radius from base of trunks. Assure that fire management personnel are aware of roost locations prior to prescribed burns.

Guidelines for Land Use Authorization (LUA)

LUA-1a. Assess potential impact on cultural resources of any project planned in the WHA on a case-by-case basis, and assure that no project planned would negatively impact any known cultural resources.

LUA-1b. Review all surface disturbing activities by government agencies on a case by case basis under Endangered Species Act, NEPA, and CEQA requirements.

LUA-1c. Conduct an annual meeting of the Blue Ridge Coordinating Committee to discuss progress and specific problems.

LUA-1d. Develop a yearly Progress Report for distribution to the Condor Recovery Team, cooperating agencies, and private landowners.

IV. PROJECT SCHEDULE

The following schedule identifies seven planned actions which will require specific projects to be completed within and adjacent to the WHA. The BLM will have lead responsibility for these projects except posting, which will be coordinated by USFWS. The source of funding and labor for some projects will be determined at the annual interagency coordination meeting. It is anticipated that the Cabin Springs pools enhancement and Twin Snags reinforcement projects will be funded by contributed funds and BLM. Labor for these projects will be provided by California Conservation Corps, volunteers and BLM. BLM will coordinate with the private landowners when necessary.

The scheduled work activities for any given year will be dependent on funding and personnel allocations of the agency expected to accomplish the planned action.

IV. PROJECT SCHEDULE

| Year | Project | Methods | Materials/Labor | Maintenance/Monitoring | Responsible Agencies |
|------|--|--|---|---|-----------------------|
| 1 | RHM-3a. Twin Snags Reinforcement | Consult with snag specialist Evelyn Bull, USFS, LaGrande, Oregon, Dr. Russell Balda, Northern Arizona University, and Lindell Yoshimura, CDF, Visalia to determine precedents and project feasibility. Inspect site in the field with Yoshimura and BLM engineers to determine project alternatives and design (with permission of Boston Ranch). If determined to be feasible, reach agreement with Boston Ranch and implement between November 1986 and April 1987. | See Year 2 | See Year 2 | BLM*, CDF, PLO** |
| 2 | RHM-3a. Twin Snags Reinforcement | Dependent on results of feasibility assessment and project design. | Dependent on project design | a) Monitor annually with photos and field checks b) Maintain as needed | BLM |
| | RHM-2i. Posting | Agreement on design and placement to be reached by Coordinating Committee within first year of HMP implementation. Install appropriate raptor protection signs along county Blue Ridge road on USFS land and Blue Ridge fire control road on USFWS land. Also along Yokohl Valley Road if agreeable to landowner (Gill). | Signs and posts; wording dependent on signs currently available from co-operating agencies or on design determined by coordinating committee. Labor provided by BLM and USFS. | a) Check each sign annually b) Repair/replace as necessary | USFWS, BLM, USFS |
| | RHM-2j. Posting | Agreement on design and placement to be reached by Coordinating Committee within first year of HMP implementation. Install closure signs in the WHA as needed to meet enforcement and protection requirements and in cooperation with private landowners: e.g., "No Hunting" signs on ridgetop (Hicks property) and USFWS lands, seasonal closure signs at all access points to public lands in the WHA, and ORV closures signs. Continue posting as new management restrictions are determined. | Signs and posts; wording dependent on signs currently available from co-operating agencies or on design determined by coordinating committee. | a) Check each sign annually b) Repair/replace as necessary | USFWS, BLM, CDFG, PLO |

IV. PROJECT SCHEDULE
(Continued)

| Year | Project | Methods | Materials/Labor | Maintenance/Monitoring | Responsible Agencies |
|------|--------------------------------------|---|--|---|----------------------|
| 3 | RHM-3d. Cabin Springs Enhancement | Subsequent to cadastral survey to determine ownership, develop Cabin Springs pools by excavating and lining with gravel or by installation of catchment device. (If on private land reach agreement with Boston Ranch). Consult L.A. Zoo, San Diego Zoo, CRC, and BLM hydrologist and soil specialist for design specifications. Collect a sample of water and analyze for quality prior to and after enhancement; also from Cats Paw pools for comparative purposes. | a) Materials dependent on project design b) Labor provided by CCC crew | a) Monitor with time-lapse camera or field observations b) Maintain as needed | BLM, PLO |
| | FM-1e. Roost Tree Clearings | Clear brush/understory in 15-foot radius around Twin Snags, Cove Snag, and Section 17 Snag to protect from wildfires. Agreement with Boston Ranch needed for Twin Snags. Consult BLM soil specialist to inspect sites for erosion potential. | a) Clearing tools b) Labor provided by Fire or CCC crews | a) Check each year b) Clear every third year as needed | BLM, PLO |
| 4 | RHM-3c. Plant Future Roost Trees | BLM personnel and USFS silvicultural specialists will select suitable locations in the MHA using aerial photos, topographic maps and suitability analysis in Lehman et al. 1985. Yellow Pine Forest areas and riparian corridors probably are best for planting. Four to five sites will be prepared as necessary and planted with numbers of yellow pine seedlings as determined by specialists to result in 20-25 future roosts. | a) Materials to be determined b) Labor assistance by scout troops or other volunteer source | a) Monitor annually by counting individual seedlings b) Clear brush around seedlings as needed | BLM, USFS |
| 5 | RHM-3b. Create Snags | BLM personnel and USFS timber specialists will select 4-5 large yellow or sugar pines in suitable locations for girdling or topping to create new roost trees. See Lehman et al. 1985 for suitability analysis and possible candidate trees and locations; field check for candidate trees as necessary. | To be determined | Establish photo file on snag development | BLM, USFS |

*First agency listed has lead responsibility.
**Private Landowner

V. MONITORING SCHEDULE

| Planned Action | Methodology | Frequency | Responsible Agencies |
|---------------------------------|--|---|----------------------|
| RHM-1a. Condor Use | Surveillance crew observations from L.O. tower 1600 to dark and in the field. When condors use the roost, a.m. observations from 0600 until condors depart. Record data on standard observation form (Appendix I). | Daily from May - October | BLM, CDFG |
| RHM-1b. Condor Tracking | Telemetry checks from ridgetop with equipment provided by CRC. Record data on standard CRC forms. | Daily from May - October | BLM, CDFG, CRC |
| RHM-1c, d. Human Use | Surveillance crew observations from L.O. tower and in the field. Record data on standard observation form (Appendix I). | Daily from May - October | BLM, CDFG |
| RHM-1e. Hunter Use | Surveillance crew observations from L.O. tower and in the field. Record data on standard observation form (Appendix I). | Daily from May - October | BLM, CDFG |
| | Compile record of legal and illegal hunting and fur-trapping on Blue Ridge, USFS lands adjacent to Blue Ridge, and along Yokohl Valley Road using surveillance crew results and standard CDFG sources. | Annually | CDFG |
| RHM-1f. Snag Numbers | Field check condition of Twin Snags, Cove Snag, and Section 17 Snag. Survey all large snags from L.O. tower and other suitable vantage points and plot on topographic overlays. | Annually | BLM, CDFG |
| RHM-1g. Communication Towers | Observations by surveillance crew. Any construction with noise impacts will be reported immediately to BLM Caliente Resource Area Office. | Daily from May - October | BLM, CDFG |
| | Request Hicks family and Tulare County Building and Planning Department by letter to inform BLM Caliente Office of issuance of new leases or building and operating permits. | Within first year of HMP implementation | BLM |
| RHM-1h. Minerals Activities | Observations by surveillance crew. Any mining activity will be reported immediately to BLM Caliente Resource Area Office. | Daily from May - October | BLM, CDFG |
| | Minerals branch of BLM Caliente Office will inform wildlife branch of any minerals related activity. | Ongoing | BLM |

V. MONITORING SCHEDULE
(Continued)

| Planned Actions | Methodology | Frequency | Responsible Agencies |
|--------------------------------|---|--|-----------------------|
| EM-1a. Species Observations | Record observations by surveillance crew on standard form (Appendix I). Place in accepted format for submission to BLM IHICS and CNDDDB (California Natural Diversity Data Base) automated data processing systems, including 1984-85 observations. | Daily from May - October Annually | BLM, CDFG BLM |
| EM-1b. Animal Trapping | Sample each plant community and habitat type with a pitfall-array system and small mammal trap lines. | Three days and nights for each site, once in late spring and once in mid-summer, first year and every fifth year after | BLM, CDFG |
| EM-1c. Deer Surveys | Field observations by surveillance crew recorded on standard form. Compile data from CDFG hunter check stations and spot kill maps. | Daily from May - October Annually | BLM, CDFG CDFG |
| EM-1d. Bird Counts | Establish and maintain an observation route in the Blue Ridge area in cooperation with annual Audubon Christmas bird count. Submit results to BLM IHICS system. | Annually | BLM |
| EM-1e. Vegetation Sampling | Sample vegetation composition for each plant community with pace-point transects (300 points) and record on appropriate forms. | First year and every fifth year after | BLM, CDFG |
| FM-1d. Burn Monitoring | Sample vegetation composition for each burn area with pace-point transects. Record on appropriate forms. | First year and every third year after | BLM, CDFG |

VI: IMPLEMENTATION AND COST SCHEDULE

| Project Activity | Planned Actions | Responsibility | Year 1 | | Year 2 | | Year 3 | | Year 4 | | Year 5 | | Year 6 | |
|--|--------------------|----------------------------------|--------|------------------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| | | | #WM's | \$000 | #WM's | \$000 | #WM's | \$000 | #WM's | \$000 | #WM's | \$000 | #WM's | \$000 |
| 1. <u>Cadastral Survey</u> | RHM-1i | BLM, FWS, CDFG ¹ | 3.0 | 3.0 ² | | | | | | | | | | |
| 2. <u>Projects</u> | | | | | | | | | | | | | | |
| a. <u>Snag Habitat Enhancement</u> | RHM-1f RHM-3a-c | BLM, CDF, USFS, PLO ³ | | | | | | | | | | | | |
| (1) Monitoring | | | 0.25 | 0.25 | 0.25 | | 0.25 | | 0.25 | | 0.25 | | 0.25 | |
| (2) Project Survey & Design | | | 0.25 | | | | | | 0.25 | | 0.25 | | | |
| (3) Construction | | | | | 1.0 | 2.0 | 0.25 | | 0.25 | | 0.25 | | | |
| (4) Monitoring | | | | | 0.25 | | 0.25 | | 0.25 | | 0.25 | | 0.25 | |
| b. <u>Posting/Signing</u> | RHM-2i- RHM-2j | FWS, BLM, CDFG, USFS | | | | | | | | | | | | |
| (1) Survey and Design | | | 0.25 | | | | | | | | | | | |
| (2) Installation | | | | | 0.25 | 0.5 | | | | | | | | |
| (3) Maintenance | | | | | | | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | | 0.25 | |
| c. <u>Cabin Springs Development</u> | RHM-3d | BLM, PLO | | | | | | | | | | | | |
| (1) Project Survey & Design | | | | | | | 0.25 | | | | | | | |
| (2) Construction | | | | | | | 0.5 | 3.0 | | | | | | |
| (3) Monitoring/Maintenance | | | | | | | | | 0.25 | 0.25 | 0.25 | | 0.25 | |
| 3. <u>Fire Management Plan Development</u> | FM1a | BLM, FWS, CDF, CDFG | | | | | | | 1.0 | | | | | |

VI: IMPLEMENTATION AND COST SCHEDULE
(Continued)

| Project Activity | Planned Actions | Respon- sibility | Year 1 | | Year 2 | | Year 3 | | Year 4 | | Year 5 | | Year 6 | |
|---|---|--------------------------------------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| | | | #WM's | \$000 | #WM's | \$000 | #WM's | \$000 | #WM's | \$000 | #WM's | \$000 | #WM's | \$000 |
| 4. <u>Studies and Moni- toring</u> | | | | | | | | | | | | | | |
| a. Surveillance | RHM-1a-e RHM-1g-h | BLM, CDFG, CRC | 6.0 | 0.5 | 6.0 | 0.5 | 6.0 | 0.5 | 6.0 | 0.5 | 6.0 | 0.5 | 6.0 | 0.5 |
| b. Mineral With- drawal (1) Survey | RHM-2e | BLM | | | | 2.0 | 1.0 | | | | | | | |
| (2) Report | | | | | | 1.0 | 1.0 | | | | | | | |
| c. Species Distri- bution and Abundance | EM-1a-e | BLM, CDFG | 1.0 | 1.0 | 0.5 | | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | | 0.5 | |
| d. Activity Com- pliance | RHM-1g-h RHM-2a-d RHM-2g-h | BLM, CDFG CDF, PLO, FWS | 0.5 | | 0.5 | | 0.5 | | 0.5 | | 0.5 | 0.5 | | |
| 5. <u>Coordination</u> | | | | | | | | | | | | | | |
| a. Project Reviews | LACA-1a-c LACA-2a-b EM-2a RHM-2f LUA-1a-b | BLM, CDFG, FWS, USFS, CRC, PLO | 0.5 | | 0.5 | | 0.5 | | 0.5 | | 0.5 | 0.5 | | |
| b. Coop. Agree- ment for Blue Ridge facili- ties | LACA-3a | BLM, CDFG | 0.5 | 2.0 | | 1.0 | | 0.5 | | 0.5 | | 0.5 | | 0.5 |
| c. Annual HMP Meeting & Rpt. | LUA-1c LUA-1d | BLM, CDFG, FWS, USFS, CRC, PLO | 1.0 | | 1.0 | | 2.0 | | 1.0 | | 1.0 | | 1.0 | |
| d. HMP Revision | | | | | | | | | | | 1.0 | | | |
| TOTALS | | | 13.25 | 6.75 | 13.25 | 6.00 | 11.00 | 4.5 | 10.75 | 1.75 | 10.75 | 2.0 | 8.5 | 1.0 |

¹First agency listed has lead responsibility.

²Dollar amounts in the second column for each year are funds required in addition to work month projections.

³Private landowners.

V. PROGRESS REPORT

The following section (BLM Form 1780-2) will be used to track progress of implementing the HMP. It also explains agency responsibilities and expected completion times for all planned actions not detailed in the Project or Monitoring Schedules. Dates of completion for all objectives, planned actions, and evaluation requirements will be filled in as appropriate.

In addition to this form, a Habitat Management Plan Progress Report will be completed annually following the annual Coordinating Committee meeting. This report will include accomplishments, expenses, and a general summary of HMP progress. The report should also evaluate any management problems which arise within the WHA, and address how these problems are to be resolved as determined by the Coordinating Committee. The Progress Report will be compiled by BLM and filed in this section of the HMP each year.

UNITED STATES
DEPARTMENT OF THE INTERIOR
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HABITAT MANAGEMENT PLAN PROGRESS REPORT

| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|--|----------------|--|----------------|--|----------------|
| RHM-1. Assess current and future management needs through monitoring (see also Monitoring Schedule). | | RHM-1a, b. Monitor condor activities in the Blue Ridge WHA. | | The BLM and CDFG will continue to support a surveillance crew with telemetry gear provided by CRC. Surveillance crew will prepare an annual surveillance report summarizing condor activity. | |
| | | RHM-1c, d, g, h. Monitor human use activities that may affect condor roosting habitat. | | Human activities will be monitored by surveillance crew and summarized in annual surveillance report. Minerals and construction activities also monitored by BLM Caliente Resource Area Office. Human use will be evaluated at annual meeting and addressed in annual HMP Progress Report. | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

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HABITAT MANAGEMENT PLAN PROGRESS REPORT

| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|--------------------|----------------|--|----------------|---|----------------|
| RHM-1. (continued) | | RHM-1e. Monitor and compile a record of any hunting and trapping activities. | | Hunting will be monitored by surveillance crew. CDFG will compile an annual record and submit for evaluation at annual meeting and inclusion in annual HMP Progress Report. | |
| | | RHM-1f. Evaluate roost tree conditions and snag densities. | | BLM/CDFG surveillance crew will survey annually and submit a brief update as part of the annual Blue Ridge surveillance report. | |
| | | RHM-1i. Conduct cadastral survey, emphasizing proposed project locations and uncertain boundaries as priorities. | | BLM will complete cadastral survey of its boundaries in first year of HMP implementation and provide a summary report to agencies and private landowners by 31 December 1987. CDFG and USFWS will survey their boundaries as necessary. | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
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3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

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| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|---|----------------|--|----------------|--|----------------|
| RHM-2. Maintain present condition of the active core roost area. Regulate human uses outside the core area and adjacent to the WHA through interagency cooperation. | | RHM-2a. Continue public vehicle closure of the Blue Ridge fire control road. | | Cooperating agencies and private landowners will continue support for closure and report problems as necessary to CDF. | |
| | | RHM-2b. Establish ORV closure on BLM lands. | | BLM will close ACEC lands to ORV activities by 31 December 1985. | |
| | | RHM-2c. Close public lands in Sections 8, 16, 17, and W1/2 of 9 to public entry 1 June - 15 September. | | BLM, CDFG, and USFWS will administratively close their respective lands to access (excepting by local landowners) by June of second year of HMP implementation. Close these lands seasonally each year thereafter. | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

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| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|--------------------|----------------|---|----------------|--|----------------|
| RHM-2. (continued) | | RHM-2d. If necessary, close public lands in the WHA to firearms or to hunting entirely (see Monitoring Schedule, RHM-1e). | | If ongoing monitoring and evaluation of hunting activities reveal condor/hunter conflicts, BLM and CDFG will administratively close their respective lands to firearms or hunting. (USFWS NWR lands already closed). | |
| | | RHM-2e. Propose withdrawal of public lands from hard-rock mineral exploration and development. | | The BLM geologist will conduct a minerals survey and prepare a report by end of second year of HMP implementation. Feasibility of withdrawal of public lands over which BLM has subsurface jurisdiction will then be determined. | |

INSTRUCTIONS

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2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

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HABITAT MANAGEMENT PLAN PROGRESS REPORT

| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|-------------------|----------------|--|----------------|--|----------------|
| RHM-2 (continued) | | RHM-2f. Recommend appropriate measures to mitigate impacts to condors during construction or maintenance of communication towers. (see Monitoring Schedule, RHM-1g). | | If a federal agency is involved USFWS will require Endangered Species Act Section 7 Consultation. For private operators, USFWS will recommend daily or seasonal restrictions to be included in Hicks family leases and/or Tulare County building and operating permits. | |
| | | RHM-2g. Continue and if possible increase enforcement of hunting regulations in the Blue Ridge area. | | CDFG Game Wardens will have lead enforcement responsibility, with emphasis on the county Blue Ridge road during deer season, and on the Yokohl Valley Road to deter illegal hunting reported by landowners. Increase of enforcement of the latter is recommended. If specific problems arise local USFWS special agent can assist. | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
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3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

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| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|--------------------------|----------------|--|----------------|---|----------------|
| <u>RHM-2</u> (continued) | | <p>RHM-2h. Coordinate CDF fire air traffic and fire control road maintenance to avoid negative impacts to condors.</p> <p>RHM-2i, j. Post the WHA and access points with raptor protection and appropriate closure signs (see Project Schedule).</p> | | <p>During fire activities radio contact will be maintained with Incident Commander by surveillance crew to advise of presence of condors. Fire control road maintenance will be coordinated with BLM Caliente Office. The surveillance crew will detail any condor activities during fire incidents or road maintenance in annual surveillance report. Problems evaluated at annual meeting.</p> <p>Coordination Committee will develop a sign program for the WHA within the first year of HMP implementation. WHA will be posted during second year and thereafter as needed.</p> | |

INSTRUCTIONS

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2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

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| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|---|----------------|---|----------------|---|----------------|
| RHM-3. Assure available condor roost trees and bathing pools. | | RHM-3a. Assess feasibility and implement, if possible, support structures for Twin Snags (see Project Schedule). RHM-3b, c. Provide future snag habitat by girdling or topping living trees in selected locations and by planting of seedlings (see Project Schedule). | | BLM will provide a proposal with alternatives to each agency representative and respective landowner within the first year of HMP implementation. Project completed the second year if feasible. BLM and USFS will top and girdle trees in fifth year of HMP implementation and monitor annually with photos. BLM and USFS will plant seedlings in fourth year of HMP implementation and monitor annually through tree counts in planting areas. | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
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3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

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| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|---|----------------|--|----------------|---|----------------|
| <u>RHM-3.</u> (continued) | | RHM-3d. Improve Cabin Springs pools for use by condors and other wildlife (see Project Schedule). | | BLM will complete project in third year of HMP implementation. Design will be by consensus of specialists, Coordinating Committee, and private landowner if necessary. | |
| <u>LACA-1.</u> Develop and maintain cooperative management approaches with private landowners in the WHA. | | LACA-1a, b, c. Promote good relations with private landowners through contacts and information exchange. Develop cooperative agreements as needed. Request permission for access to or project site location on private lands as needed. | | Provide private landowners with copies of HMP. Include landowners in all annual meetings and project reviews and provide each with Progress Reports (also project proposals as appropriate). Solicit local management information from landowners as needed (e.g., livestock data, hunter trespass problems). BLM will have lead responsibility for requesting access and project | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

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HABITAT MANAGEMENT PLAN PROGRESS REPORT

| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|--|----------------|---|----------------|--|----------------|
| LACA-1. (continued) | | LACA 1a, b, c. (cont.) | | sites. All cooperating agencies will participate, as needed, in development of cooperative agreements or purchase of easements. | |
| LACA-2. Monitor changes in ownership of private lands and acquire as feasible and necessary. | | LACA-2a. Seek input from landowners concerning land sale plans. | | BLM, USFWS, CDFG, and CRC each will report to the Coordinating Committee any land sale plans coming to their attention. Ask private landowners about their land sale plans at or prior to annual meetings and include information in annual Progress Report. | |
| | | LACA-2b. Consider purchase of right of first refusal on important private lands in the WHA. | | Condor Research Center will assess the cost and feasibility of securing rights of first refusal to the Pearson property and Boston Ranch parcels in Sections 5 and 8 by end of second year of HMP implementation. Agency | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
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3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

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HABITAT MANAGEMENT PLAN PROGRESS REPORT

| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|---|----------------|--|----------------|---|----------------|
| <u>LACA-2.</u> (continued) | | <u>LACA-2b.</u> (cont.) | | approval and funding commitments to be determined after assessment. | |
| <u>LACA-3.</u> Maintain the physical integrity and utility of the look-out facilities for continued operation by management and surveillance personnel. | | <u>LACA-3a.</u> Develop a Co-operative Management Agreement between BLM and CDFG to coordinate furnishing and maintenance of the lookout tower facilities. | | CDFG will secure agency responsibility for look-out facilities by early 1986. CMA will be developed and approved by end of first year of HMP implementation. Annual surveillance report will assess condition of facility and appliances. | |
| <u>EM-1.</u> Inventory and monitor all vegetation and wildlife use (see also Monitoring Schedule). | | <u>EM-1a.</u> Record all species observations and supply information to BLM IHICS system and California Natural Diversity Data Base (CNDDDB). | | BLM/CDFG surveillance crew will gather species sightings during field operations. Information to be submitted to data processing systems annually after field season. | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|--------------------------|----------------|---|----------------|---|----------------|
| <u>EM-1.</u> (continued) | | <u>EM-1b.</u> Document small mammal and reptile occurrence under CDFG Scientific Collecting Permits. | | BLM/CDFG surveillance crew will inventory with a pitfall array system and small mammal traplines the first year and every fifth year after. | |
| | | <u>EM-1c.</u> Conduct annual deer surveys. | | BLM and CDFG will coordinate annual surveys. | |
| | | <u>EM-1d.</u> Coordinate Christmas bird count with local Audubon chapter. | | BLM will establish and maintain an annual observation route in the Blue Ridge area and submit results to IHICS system. | |
| | | <u>EM-1e.</u> Quantify species composition in each plant community and habitat type through censusing techniques. | | BLM will coordinate surveys the first year and every fifth year after. | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

UNITED STATES
DEPARTMENT OF THE INTERIOR
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HABITAT MANAGEMENT PLAN PROGRESS REPORT

| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|--|----------------|---|----------------|--|----------------|
| EM-2. Encourage livestock grazing operations that benefit condors and improved habitat conditions. | | EM-2a. Encourage maintenance of grazing permits and leases in or near the WHA, except in core roost area and Cabin Springs. | | Through the administration of annual grazing permits/agreements, BLM, USFS, CDFG and FWS will continue to ensure proper grazing practices are adhered to on public lands within and adjacent to the WHA. Of special concern are protection of springs/seeps and wetland areas. | |
| FM-1. Apply fire management principles as an integral part of protection, maintenance and enhancement of habitat values. | | FM-1a. Develop a fire management plan for the WHA which addresses pre-suppression needs, prescribed burn recommendations, and suppression strategies in case of wildfire. | | BLM, CDF, USFWS, and CDFG will complete a cooperative interagency plan which meets fire management needs and defines respective agency commitments and responsibilities by the end of the fourth year of HMP implementation. | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

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HABITAT MANAGEMENT PLAN PROGRESS REPORT

| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|-------------------|----------------|---|----------------|---|----------------|
| FM-1. (continued) | | <p>FM-1b. Continue co-operative burn program with private landowners and CDF.</p> <p>FM-1c. Support CDF/private landowner plans for prescribed burning of portions of the Peck property and Sequoia Ranch.</p> <p>FM-1d. Monitor effects of prescribed burns to determine recovery rates and plant species composition (see Monitoring Schedule).</p> | | <p>As provided in the Vegetation Management Program, BLM, CDFG, and USFWS will cooperate with CDF in any prescribed burns involving their respective lands. Support will include agency permission, funds, and/or logistical support.</p> <p>Burn prescription completed in 1985. CDFG will support CDF and private landowner as per agency commitment.</p> <p>BLM/CDFG surveillance crew will monitor first year after burns and every third year after.</p> | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

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| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|---|----------------|---|----------------|---|----------------|
| <u>FM-1.</u> (continued) | | <u>FM-1e.</u> Develop buffer zones around roost trees by clearing of vegetation (see Project Schedule). Assure that fire management personnel are aware of roost locations prior to prescribed burns. | | Buffer zones will be cleared in third year of HMP implementation. CDF will be informed by letter and a map of roost and other large snag locations within first year of implementation. Roost locations will also be specified in the fire management plan. | |
| <u>LUA-1.</u> Ensure that all land use and actions within the WHA comply with legal restrictions and cooperating agency policies. | | <u>LUA-1a.</u> Assess potential impacts on cultural resources from proposed projects and assure that no projects impact those resources. | | Each respective agency will conduct cultural clearances as appropriate for any proposed actions located under their jurisdiction. | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

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HABITAT MANAGEMENT PLAN PROGRESS REPORT

| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|--------------------|----------------|--|----------------|---|----------------|
| LUA-1. (continued) | | LUA-1b. Review all surface disturbing activities by government agencies on a case-by-case basis under Endangered Species Act, NEPA, and CEQA requirements. | | Each agency will prepare an EIR or EIS for any potentially impacting activity located under their jurisdiction as required by law. USFWS will conduct Section 7 Consultations as required by the Endangered Species Act of 1973 whenever federal agencies are involved in potentially impacting activities. Findings will be submitted to the Condor Recovery Team and Coordinating Committee and incorporated into the annual HMP Progress Report. | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

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| OBJECTIVES | DATE COMPLETED | PLANNED ACTIONS | DATE COMPLETED | EVALUATION/MONITORING | DATE COMPLETED |
|--------------------|----------------|---|----------------|---|----------------|
| LUA-1. (continued) | | <p>LUA-1c. Conduct annual meetings of the Blue Ridge Coordinating Committee to discuss progress, problems, and project reviews (see Coordination Section).</p> <p>LUA-1d. Develop a yearly Progress Report.</p> | | <p>Annual meeting will be scheduled between 1 September and 15 October each year. All cooperating agencies will provide information as applicable for discussion by the Committee.</p> <p>Progress Report will be compiled by BLM after the annual Committee meeting and distributed to the Condor Recovery Team, cooperating agencies, and private landowners.</p> | |

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

VIII. COORDINATION

A. Between Contributing Agencies

1. Blue Ridge Coordinating Committee

The Blue Ridge Coordinating Committee was organized to meet the intent and specific objectives of the Memorandum of Understanding (Appendix B) as developed and signed by the BLM, USFWS, CDFG, and USFS. It is composed of representatives from these agencies, which are the signatories to this HMP. In addition, representatives from the CRC, Tulare County and the CDF joined the Committee as advisors in their respective areas of jurisdiction and expertise. Private landowners with substantial or key holdings in the Blue Ridge area also were invited and participated in Committee meetings; this was necessary to satisfy their concerns with regard to the HMP's effects on their economic or personal interests, and to satisfy the government's need to maintain workable relations with them. The Blue Ridge Coordinating Committee played an instrumental role in the development of this HMP, and will continue to function in its implementation and annual review (see Part A2 below). Thus, the Committee, through future scheduled meetings and other contacts, will serve to coordinate the activities of the principal cooperating state and federal agencies, as well as the CRC, CDF, County, and private cooperators. BLM will take the lead role in this coordination.

Representatives to date of the Blue Ridge Coordinating Committee are as follows:

Robert Adamcik
U.S. Fish and Wildlife Service
Kern National Wildlife Refuge
P.O. Box 670
Delano, CA 93216
(805) 725-5284

Mary Beatie
Tulare County Building and Planning Department
Tulare County Courthouse, Room 111
Visalia, CA 93291
(209) 733-6313

Linda Blum
Condor Research Center
2291-A Portola Road
Ventura, CA 93003
(805) 644-1766

William Clark
Office of Tulare County Agricultural Commissioner
County Civic Center
Main and Woodland Drive
Visalia, CA 93291
(209) 733-6391

James Crew
California Department of Fish and Game
841 E. Scranton
Porterville, CA 93257
(209) 781-7611

Cathy Hughes Dymkoski
U.S. Forest Service, Sequoia National Forest
Tule River Ranger District
32588 Highway 190
Porterville, CA 93257
(209) 539-2607

Steve Kimple
California Department of Fish and Game-Condor
Research Center
2291-A Portola Road
Ventura, CA 93003
(805) 644-1766

William Lehman
U.S. Bureau of Land Management
520 Butte Street
Bakersfield, CA 93305
(805) 861-4236

William Meers
California Department of Forestry
Hammond Fire Station
Mineral King Drive
Three Rivers, CA 93271
(209) 561-4432

George Sheppard
U.S. Bureau of Land Management
520 Butte Street
Bakersfield, CA 93305
(805) 861-4236

The Committee is also indebted to:

Larry Owens
Special Agent, U.S. Fish and Wildlife Service
P.O. Box 5377
Fresno, CA 93755
(209) 222-3639

Carlos Rey
U.S. Fish and Wildlife Service
Kern National Wildlife Refuge
P.O. Box 670
Delano, CA 93216
(805) 725-5284

Private landowners who participated in the Blue Ridge planning process are:

Lloyd Hicks
Houk, Hicks, Spain & Line
Visalia, CA

Pat Kidd
Lesco (Battle Mountain Ranch)
Costa Mesa, CA

Harvey Ruth
Manager, Boston Ranch
Exeter, CA

James Wells
Sequoia Ranch Company
Three Rivers, CA

Other private landowners or livestock operators who provided information to the Blue Ridge Coordinating Committee are:

Glenn and Betty Gill, Porterville, CA.

Lee Gill, Porterville, CA.

Les Guthrie, Guthrie Cattle Company,
Porterville, CA.

Othel Pearson, Springville, CA.

Bill Sweetzer, Livestock Manager, Battle Mountain Ranch.

The agenda which has led to completion of this HMP is as follows:

| | |
|-------------------|---|
| July 10, 1984 | First meeting of Blue Ridge Committee, with representatives from state, regional and local agency offices. Development of MOU agreed to. |
| January 11, 1985 | Blue Ridge Committee meeting, now with local representatives only. Direction and objectives of HMP and individual agency responsibilities in its development discussed. |
| February 1, 1985 | BLM Blue Ridge ACEC designation announced in Federal Register. |
| February 12, 1985 | First outline defining HMP planned actions mailed by BLM for Committee review. |
| March 7, 1985 | Blue Ridge Committee meeting. Further discussion and development of HMP objectives and planned actions. |
| March 12, 1985 | Second outline defining HMP planned actions mailed by BLM for Committee review. |
| April 2, 1985 | End of 60-day comment period on ACEC designation. |
| April 9, 1985 | MOU signed by USFWS. |
| April 15, 1985 | MOU signed by BLM. |
| May 3, 1985 | Letter explaining and describing HMP sent by BLM to Tulare County Board of Supervisors. |
| May 28, 1985 | MOU signed by CDFG. |

| | |
|------------------|--|
| June 28, 1985 | First draft of HMP sent to Committee members and private cooperators. |
| July 12, 1985 | MOU signed by USFS. Effective date of MOU. |
| July 17, 1985 | Blue Ridge Committee meeting. Review of HMP first draft. |
| August 14, 1985 | Second draft of HMP sent to Committee members, private cooperators, CRC, and state and regional offices of signatory agencies. |
| September 1985 | Incorporation of revisions resulting from final review. |
| November 2, 1985 | HMP presented to Vulture Symposium of the Raptor Research Foundation Conference, Sacramento, California. |

2. Blue Ridge Committee Annual Meetings

The Blue Ridge Committee will meet annually no earlier than 1 September or later than 15 October, the exact date to be coordinated by BLM with consensus of all cooperating agencies. Private landowner representatives who participated on the Committee to date should be invited to annual meetings (Hicks, Kidd, Ruth, Wells), as well as other private parties as necessary (e.g., Pearson and the Gills). The annual meeting will be chaired by the BLM representative. It should evaluate HMP progress during the previous year, specific problems, results of the surveillance period, and coordinate funding and activities of the upcoming year. All pertinent information will be assembled at the annual meeting for compilation into the annual Progress Report.

B. Condor Recovery Team

The multi-agency Condor Recovery Team is one group responsible for overseeing and advising research and management of the California Condor. The Recovery Team will be informed of HMP progress through the annual

evaluation reports and other means and will provide recommendations when necessary.

C. Acknowledgments

In addition to the Blue Ridge Coordinating Committee, private cooperators, and BLM Caliente Resource Area and Bakersfield District Office staff, the following individuals and agencies are thanked for their review of the HMP.

Mike Ferguson, U.S. Bureau of Land Management, Sacramento, California.

Dennis Haines, Office of Tulare County Agricultural Commissioner, Visalia, California.

Gordon Heebner, U.S. Forest Service, Sequoia National Forest, Porterville, California.

Ron Jurek, California Department of Fish and Game & Condor Recovery Team, Sacramento, California.

Natural Heritage Section, California Department of Fish and Game, Sacramento, California.

Dr. Richard R. (Butch) Olendorff, U.S. Bureau of Land Management & Condor Recovery Team, Sacramento, California.

State Lands Commission, State of California, Sacramento.

XI. WILDLIFE ECONOMICS

This HMP is designed primarily as a cooperative effort in terms of monitoring, conservation efforts, and coordination with agencies and private landowners. This approach is the most cost-effective manner for maintaining and enhancing habitat values in this WHA. Any projects developed in this HMP will have been evaluated on the "Least Cost Alternative" approach.

Due to the sensitivity of the resources involved, this activity plan results in more restrictive actions than would consumptive activities that could be used to generate benefits. However, it is important to describe the intangible value of an endangered species like the California Condor. This species is of importance to the international wildlife conservation community and represents the extensive efforts expended toward this global concern by the United States of America. In November 1985 there will be an International Symposium for Raptors held in Sacramento, California. The condor and its management by state and federal agencies will receive substantial attention.

At a more local level, Blue Ridge is one of only two roosting sites officially designated as critical habitat. The species itself, like all vultures, serves as a recycler in the ecological scheme. Removal of livestock and wildlife carcasses through this natural process improves grazing and habitat conditions. Condors as an educational tool are used frequently at all levels of education, particularly in courses through colleges and universities. The Condor Research Center receives numerous calls and visits throughout the year, requesting information and programs. For grammar school levels, television programs have been shown concerning the plight and value of condors. Lastly, a frontier that has not even been approached is immunology.

This species' ability to ward off disease under normally transmittable conditions could indicate an unexplored but incalculable value for mankind in terms of disease prevention and other medical research.

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PERSONAL COMMUNICATION

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Lee Gill, Porterville, CA.

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Othel Pearson, Springville, CA.

Harvey Ruth, Manager, Yokohl Valley Cattle Company Exeter, CA.

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1,225, Sacramento, CA 95814.

APPENDIX A

BLUE RIDGE MANAGEMENT RECOMMENDATIONS FROM
1984 CALIFORNIA CONDOR RECOVERY PLAN

(as compiled in Lehman and Olendorff 1984)

1. Manage and administer Critical Habitat for condors at Blue Ridge, Tulare County.
2. Restrict human activity at Blue Ridge during condor use periods.
3. Develop a fire management plan for the Blue Ridge area.
4. Improve bathing pools at Blue Ridge.
5. Implement needed habitat manipulations to improve and perpetuate suitable condor habitat in the Blue Ridge area.
6. Manage roost trees and understory (Blue Ridge) to ensure continuing existence of adequate roost sites.
7. Post signs at Blue Ridge designating areas closed to human entry and firearms discharge.
8. Preserve the Boston Ranch parcel (Blue Ridge) located in Sections 5 and 8 (T19S R29E) through cooperative agreement, easement or purchase.
9. Preserve the Pearson property (Blue Ridge) consisting of 20 acres in Section 9 (T19S R29E) through cooperative agreement, easement or purchase.
10. Determine if restrictions or termination of firearms discharge in the Blue Ridge critical habitat area is needed.
11. Restrict aircraft activity, particularly military jet flights, in key condor areas where collisions with condors could occur. (Does not mention Blue Ridge specifically but is pertinent to Blue Ridge).
12. Maintain an observer in the Blue Ridge area annually during condor use periods.
13. Assess impacts of human use at Blue Ridge throughout the year.

APPENDIX B

MEMORANDUM OF UNDERSTANDING

BETWEEN

U.S. FISH AND WILDLIFE SERVICE

U.S. BUREAU OF LAND MANAGEMENT

U.S. FOREST SERVICE

and

THE CALIFORNIA DEPARTMENT OF FISH AND GAME

This MEMORANDUM OF UNDERSTANDING (MOU) dated July 12, 1985, between the California Department of Fish and Game (CDFG), the U.S. Fish and Wildlife Service (FWS), the U.S. Bureau of Land Management (BLM), and the U.S. Forest Service (USFS), defines cooperative management roles and responsibilities of the Federal and State agencies which administer lands or other resources in the Blue Ridge Condor Sanctuary, Tulare County, California.

The U.S. Fish and Wildlife Service enters into this MOU in accordance with the Endangered Species Act of 1973, as amended (16 USC 1533, 1534, 1536 P.L. 95-632), using Cooperative Agreements (31 USC 6305) and the Fish and Wildlife Act of 1956 (16 USC 742f).

APPENDIX B (Continued)

WHEREAS, these agencies have legal responsibilities for the management of wildlife and for its habitat within the State of California and must collectively provide for maintenance and management of a sanctuary in Tulare County, California, to be known as the Blue Ridge Condor Sanctuary (delineated on the map attached hereto and made a part of this agreement);

WHEREAS, CDFG under the laws of the State of California, is, among other considerations, charged with administering approximately 900 acres of CDFG-owned lands at Blue Ridge as an ecological reserve, and with providing for the preservation, protection, and enhancement of those lands for the benefit of endangered and rare species of the State of California;

WHEREAS, FWS, under authority of the Fish and Wildlife Act of 1956 (70 Stat. 1122; 16 U.S.C. 742F) and the National Wildlife Refuge System Administration Act of 1966, is responsible for the administration and management of approximately 900 acres of national wildlife refuge lands, and waters, together with the conservation of biota therein, including restoration of species threatened with extinction;

WHEREAS, the BLM administers approximately 3300 acres in the Blue Ridge Condor Sanctuary pursuant to the Federal Land Policy and Management Act of 1976, and must promote the conservation of endangered species on those lands;

APPENDIX B (Continued)

WHEREAS, the USFS is responsible for lands and biota within the adjacent Sequoia National Forest and has interest in the survival of condors which use Blue Ridge;

WHEREAS, the aforementioned agencies have recognized the desirability of preserving the California condor, an endangered species;

WHEREAS, each of the agencies involved has developed recognized skills and experience in its field of responsibility which will be required for the successful attainment of the objectives of this Memorandum of Understanding; and

WHEREAS, each agency, in varying degrees, will be directly involved in the overall preservation and management of California condors and their habitat;

NOW, THEREFORE, the parties hereto agree that maintaining condors in native habitat, including the Blue Ridge Condor Sanctuary, is an important objective; and furthermore,

A. The Agencies mutually agree to:

1. Develop and implement a mutually acceptable management plan to meet the objectives of this MOU;

APPENDIX B (Continued)

2. Participate in research activities on the sanctuary to benefit California condors;
 3. Assist in necessary maintenance of all developments within the sanctuary;
 4. Meet at least once annually to coordinate activities in the sanctuary and to review the provisions of this MOU; and
 5. Develop regulations relative to condor management in the sanctuary in cooperation with all parties to the MOU, and furthermore
- B. The FWS agrees to:
1. Coordinate posting of the sanctuary with appropriate signs. Each agency agrees to survey and mark its portion of the exterior sanctuary boundary to facilitate this posting.
 2. Provide law enforcement support for the protection of condors.
- C. The CDFG agrees to:
1. Cooperate in monitoring of human and condor activities during condor use periods, subject to available funding;
 2. Provide first response to law enforcement needs;
 3. Coordinate the development of a fire management plan to guide California Department of Forestry and USFS actions near the sanctuary.
 4. Maintain the Blue Ridge lookout tower for use as an observation point for research on condors and surveillance of the birds and their habitat.

APPENDIX B (Continued)

5. Cooperate with California Department of Forestry and State Lands Commission to ensure that their lands at Blue Ridge are maintained and managed in a manner compatible with condor use.

D. The BLM agrees to:

1. Take the lead in preparing a management plan for the sanctuary which will be agreeable to all governmental agencies and private landowners involved;
2. Cooperate in monitoring human and condor activities during condor use period; and
3. Assist fire patrol and control.

E. The Forest Service agrees to:

1. Assist fire patrol and control, and law enforcement efforts;
2. Assist cooperating agencies in public relations program; and
3. Provide technical expertise, particularly silvicultural, in the development of the aforementioned management plan.

FURTHERMORE, the Agencies mutually agree to the following:

1. On-site construction and operation required in management of the sanctuary will be planned jointly. It is further agreed that the Blue Ridge Condor Sanctuary will require minor facilities, such as shelters, fences, water facilities, and access to be designed and located in a manner compatible with the objective of this MOU.

APPENDIX B (Continued)

2. All physical facilities constructed by each agency in connection with this project will be the property of the respective agency.
3. All requests for use of lands of the sanctuary, including but not limited to requests for oil and gas leasing, and rights-of-way, and permits for domestic livestock grazing will be reviewed closely to determine their compatibility with the purposes and objectives of the sanctuary as herein set forth. Any such uses, to be granted under permit by the CDFG, BLM, FWS, will be subject to the rules and regulations as cited in Titles 43 and 50, C.F.R., and any other regulations deemed necessary to protect the California condor. Public access to the area, other than that of landowners, shall be limited. Trespass control will be a mutual responsibility.
4. Coordination and planning, and the interagency exchange of information, and other related considerations will be conducted as needs arise. Formal discussions and planning shall occur no less than once each year in conjunction with annual meetings called for by this MOU.
5. Since accomplishment of sanctuary objectives is of mutual concern, all attending costs shall be non-reimbursable.

APPENDIX B (Continued)

6. This MOU shall become effective as of the date of final signature hereto and shall continue in force until terminated by mutual agreement or upon six (6) months' notice in writing to the other cooperators of intention to do so.

Amendments to this MOU may be proposed by any party and become effective upon written approval of all parties.

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum of Understanding to be in effect as of the date last signed below.

U.S. FISH AND WILDLIFE SERVICE

By: William J. Shale
Assistant Regional Director
Federal Assistance

4-9-55
Date

STATE OF CALIFORNIA DEPARTMENT OF FISH AND GAME

By: for Robert C. Fox
Director

APR 28 1955
Date

APPENDIX B (Continued)

U.S. BUREAU OF LAND MANAGEMENT

By: Ed Harker
State Director

9/15/05
Date

U.S. FOREST SERVICE

By: Thomas Spurr
Regional Forester

2/12/05
Date

APPENDIX C

AVIAN SPECIES OF THE BLUE RIDGE WHA

(From Burns and Norris 1983, Benjamin et al. 1983, and Lehman et al. 1985
Scientific and common names from A.O.U. 1983.)

KEY

| | |
|-----|--|
| A | Abundant. Observed 90-100% of days censused. |
| V | Very common. Observed 70-89% of days censused. |
| C | Common. Observed 30-69% of days censused. |
| U | Uncommon. Observed 10-29% of days censused. |
| R | Rare. Observed 1-9% of days censused. |
| NO | Not observed. |
| * | Habitat censused inconsistently. |
| ** | Nocturnal. Censused inconsistently. |
| *** | Reported in 1983, not observed in 1984. |
| % | Percent of census days species observed. |

| COMMON NAME | SCIENTIFIC NAME | JUNE %/Status | JULY %/Status | AUGUST %/Status | SEPTEMBER %/Status | OCTOBER %/Status | NOVEMBER %/Status |
|---------------------------|--------------------------------|------------------|------------------|--------------------|-----------------------|---------------------|----------------------|
| Turkey Vulture | <u>Cathartes aura</u> | 83/V | 86/V | 90/A | 64/C | NO | NO |
| California Condor | <u>Gymnogyps californianus</u> | 63/C | 61/C | 42/C | 14/U | NO | NO |
| Northern Goshawk*** | <u>Accipiter gentilis</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Cooper's Hawk | <u>Accipiter cooperii</u> | 8/R | 14/U | 10/U | 25/U | 7/R | 20/U |
| Sharp-shinned Hawk | <u>Accipiter striatus</u> | NO | 3/R | NO | 7/R | NO | NO |
| Northern Harrier | <u>Circus cyaneus</u> | NO | NO | 3/R | NO | NO | NO |
| Red-tailed Hawk | <u>Buteo jamaicensis</u> | 92/A | 97/A | 97/A | 100/A | 33/C | 60/C |
| Red-shouldered Hawk* | <u>Buteo lineatus</u> | 8/R | NO | NO | NO | NO | NO |
| Golden Eagle | <u>Aquila chrysaetos</u> | 83/V | 86/V | 81/V | 64/C | 60/C | 20/U |
| Osprey | <u>Pandion haliaetus</u> | NO | NO | NO | 7/R | NO | NO |
| Prairie Falcon | <u>Falco mexicanus</u> | 8/R | NO | 6/R | 4/R | NO | NO |
| American Kestrel | <u>Falco sparverius</u> | 33/C | 36/C | 13/U | 14/U | NO | NO |
| Blue Grouse*** | <u>Dendragapus obscurus</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| California Quail* | <u>Callipepla californica</u> | NO | 3/R | 3/R | 7/R | NO | NO |
| Mountain Quail | <u>Oreortyx pictus</u> | 42/C | 25/U | 23/U | 32/C | NO | NO |
| Shorebird Species (flock) | ? | NO | NO | NO | 4/R | NO | NO |
| Rock Dove | <u>Columba livia</u> | 8/R | 7/R | NO | 4/R | NO | NO |
| Band-tailed Pigeon | <u>Columba fasciata</u> | 25/U | NO | 26/U | 75/V | 100/A | 100/A |
| Mourning Dove | <u>Zenaidura macroura</u> | 100/A | 100/A | 45/C | 18/U | NO | NO |

APPENDIX C

AVIAN SPECIES OF THE BLUE RIDGE WHA
(Continued)

| COMMON NAME | SCIENTIFIC NAME | JUNE %/Status | JULY %/Status | AUGUST %/Status | SEPTEMBER %/Status | OCTOBER %/Status | NOVEMBER %/Status |
|---------------------------|---------------------------------|------------------|------------------|--------------------|-----------------------|---------------------|----------------------|
| Greater Roadrunner*** | <u>Geococcyx californianus</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Western Screech Owl** | <u>Otus kennicottii</u> | NO | 7/R | 16/U | 7/R | NO | NO |
| Great Horned Owl** | <u>Bubo virginianus</u> | NO | 3/R | 3/R | NO | NO | NO |
| Northern Pygmy Owl** | <u>Glaucidium gnoma</u> | 8/R | NO | 3/R | NO | NO | NO |
| Northern Saw-whet Owl*** | <u>Aegolius acadicus</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Common Nighthawk*** | <u>Chordeiles minor</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Common Poorwill*** | <u>Phalaenoptilus nuttallii</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Whip-poor-will*** | <u>Caprimulgus vociferus</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| White-throated Swift | <u>Aeronautes saxatalis</u> | 83/V | 93/A | 74/V | 86/V | 20/U | NO |
| Black-chinned Hummingbird | <u>Archilochus alexandri</u> | 8/R | NO | NO | NO | NO | NO |
| Anna's Hummingbird | <u>Calypte anna</u> | 8/R | NO | NO | NO | NO | NO |
| Rufous Hummingbird*** | <u>Selasphorus rufus</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Northern Flicker | <u>Colaptes auratus</u> | 33/C | 68/C | 87/V | 86/V | 86/V | 60/C |
| Lewis' Woodpecker*** | <u>Melanerpes lewis</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Pileated Woodpecker | <u>Dryocopus pileatus</u> | 25/U | 57/C | 48/C | 26/U | NO | NO |
| Nuttall's Woodpecker | <u>Picoides nuttallii</u> | 33/C | 17/U | 10/U | NO | NO | NO |
| Acorn Woodpecker | <u>Melanerpes formicivorus</u> | 100/A | 100/A | 100/A | 100/A | 93/A | 100/A |
| White-headed Woodpecker | <u>Picoides albolarvatus</u> | 8/R | 7/R | 16/U | 18/U | 86/V | 80/V |
| Red-breasted Sapsucker | <u>Sphyrapicus ruber</u> | NO | 3/R | 3/R | 4/R | 33/U | NO |
| Hairy Woodpecker | <u>Picoides villosus</u> | 25/U | 10/U | 10/U | 18/U | 13/U | NO |
| Downy Woodpecker | <u>Picoides pubescens</u> | 8/R | 21/U | 16/U | 18/U | NO | NO |
| Ash-throated Flycatcher | <u>Myiarchus cinerascens</u> | 42/C | 17/U | 3/R | NO | NO | NO |
| Purple Martin*** | <u>Progne subis</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Black Phoebe* | <u>Sayornis nigricans</u> | NO | NO | NO | 7/R | NO | 10/U |
| Western Kingbird*** | <u>Tyrannus verticalis</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Western Wood Pewee | <u>Contopus sordidulus</u> | 100/A | 93/A | 42/C | 36/C | NO | NO |
| Olive-sided Flycatcher | <u>Contopus borealis</u> | NO | No | 6/R | 14/U | NO | NO |
| Western Flycatcher*** | <u>Empidonax difficilis</u> | ---- | ---- | ---- | ---- | ---- | ---- |

APPENDIX C

AVIAN SPECIES OF THE BLUE RIDGE WHA
(Continued)

| COMMON NAME | SCIENTIFIC NAME | JUNE %/Status | JULY %/Status | AUGUST %/Status | SEPTEMBER %/Status | OCTOBER %/Status | NOVEMBER %/Status |
|-------------------------|-------------------------------|------------------|------------------|--------------------|-----------------------|---------------------|----------------------|
| Cliff Swallow | <u>Hirundo pyrrhonota</u> | 8/R | NO | NO | NO | NO | NO |
| Tree Swallow *** | <u>Tachycineta bicolor</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Violet-green Swallow | <u>Tachycineta thalassina</u> | 100/A | 90/A | 6/R | NO | NO | NO |
| Stellar's Jay | <u>Cyanocitta stelleri</u> | 92/A | 100/A | 100/A | 96/A | 100/A | 100/A |
| Scrub Jay* | <u>Apelocoma coerulescens</u> | 25/U | 4/R | 26/A | 21/U | NO | NO |
| Clark's Nutcracker*** | <u>Nucifraga columbiana</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Common Raven | <u>Corvus corax</u> | 67/C | 17/U | 10/U | 68/C | 73/V | 60/C |
| Mountain Chickadee | <u>Parus gambeli</u> | 33/C | 41/C | 65/C | 29/U | 40/C | NO |
| Plain Titmouse | <u>Parus inornatus</u> | 17/U | 28/U | 68/C | 93/A | 60/C | 100/A |
| Bushtit | <u>Psaltiriparus minimus</u> | 17/U | 34/C | 52/C | 43/C | 40/C | 20/U |
| Wrentit | <u>Chamaea fasciata</u> | 33/C | 55/C | 77/V | 71/V | 47/C | NO |
| American Dipper* | <u>Cinclus mexicanus</u> | NO | NO | NO | 4/R | NO | NO |
| White-breasted Nuthatch | <u>Sitta carolinensis</u> | 25/U | 28/U | 26/U | 25/U | 47/C | 60/C |
| Red-breasted Nuthatch | <u>Sitta canadensis</u> | 8/R | 14/U | 45/C | 39/C | 53/C | 20/U |
| Brown Creeper | <u>Certhia americana</u> | 33/C | 21/U | 13/U | 7/R | 20/U | NO |
| House Wren | <u>Troglodytes aedon</u> | 33/C | 34/C | 45/C | 18/U | NO | NO |
| Bewick's Wren | <u>Thryomanes bewickii</u> | 17/U | 14/U | 26/U | 18/U | 7/R | 40/C |
| Rock Wren | <u>Salpinctes obsoletus</u> | NO | NO | NO | 4/R | 7/R | NO |
| Canyon Wren | <u>Catherpes mexicanus</u> | 100/A | 79/V | 87/V | 89/V | 93/A | 80/V |
| Sage Thrasher | <u>Oreoscoptes montanus</u> | NO | NO | NO | 7/R | NO | NO |
| California Thrasher* | <u>Toxostoma redivivum</u> | NO | NO | 3/R | NO | NO | NO |
| Swinson's Thrush*** | <u>Catharus ustulatus</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Hermit Thrush*** | <u>Catharus guttatus</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| American Robin | <u>Turdus migratorius</u> | 42/C | 48/C | 19/U | 21/U | NO | 40/C |
| Western Bluebird | <u>Sialia mexicana</u> | 25/U | 45/C | 61/C | 89/V | 47/C | NO |
| Blue-grey Natcatcher | <u>Polioptila caerulea</u> | NO | NO | 10/U | NO | NO | NO |

APPENDIX C

AVIAN SPECIES OF THE BLUE RIDGE WHA
(Continued)

| COMMON NAME | SCIENTIFIC NAME | JUNE %/Status | JULY %/Status | AUGUST %/Status | SEPTEMBER %/Status | OCTOBER %/Status | NOVEMBER %/Status |
|-----------------------------|----------------------------------|------------------|------------------|--------------------|-----------------------|---------------------|----------------------|
| Golden-crowned Kinglet | <u>Regulus satrapa</u> | NO | NO | NO | NO | 13/U | NO |
| Ruby-crowned Kinglet | <u>Regulus calendula</u> | NO | NO | 3/R | 4/R | 73/V | 20/U |
| Cedar Waxwing*** | <u>Bombycilla cedrorum</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Solitary Vireo | <u>Vireo solitarius</u> | NO | NO | 3/R | 7/R | NO | NO |
| Warbling Vireo | <u>Vireo gilvus</u> | NO | NO | 10/U | 3/R | NO | NO |
| Orange-crowned Warbler | <u>Vermivora celata</u> | NO | 3/R | NO | NO | NO | NO |
| Nashville Warbler | <u>Vermivora ruficapilla</u> | NO | NO | NO | 7/R | NO | NO |
| Yellow-rumped Warbler | <u>Dendroica coronata</u> | NO | NO | 3/R | 7/R | 26/U | NO |
| Townsend's Warbler*** | <u>Dendroica townsendi</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Hermit Warbler | <u>Dendroica occidentalis</u> | NO | NO | 6/R | 18/U | NO | NO |
| Black-throated Gray Warbler | <u>Dendroica nigrescens</u> | 8/R | 7/R | 19/U | 25/U | 13/U | NO |
| Wilson's Warbler | <u>Wilsonia pusilla</u> | NO | NO | 6/R | NO | NO | NO |
| MacGillivray's Warbler*** | <u>Opornis tolmiei</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Northern Oriole | <u>Icterus galbula</u> | 33/C | 31/C | NO | NO | NO | NO |
| Brewer's Blackbird*** | <u>Euphagus cyanocephalus</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Brown-headed Cowbird | <u>Molothrus ater</u> | NO | 3/R | NO | NO | NO | NO |
| Western Tanager | <u>Piranga ludoviciana</u> | 50/C | 21/U | 26/U | 18/U | NO | NO |
| Black-headed Grosbeak | <u>Pheucticus melanocephalus</u> | 58/C | 48/C | 16/U | 3/R | NO | NO |
| Lazuli Bunting | <u>Passerina amoena</u> | NO | NO | 3/R | NO | NO | NO |
| Purple Finch*** | <u>Carpodacus purpureus</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| House Finch | <u>Carpodacus mexicanus</u> | 25/U | 3/R | NO | NO | NO | NO |
| Cassin's Finch*** | <u>Carpodacus cassinii</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Pine Siskin*** | <u>Carduelis pinus</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Lawrence's Goldfinch*** | <u>Carduelis lawrencei</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Lesser Goldfinch* | <u>Carduelis psaltria</u> | 8/R | 10/U | 23/U | 14/U | NO | 20/U |

APPENDIX C

AVIAN SPECIES OF THE BLUE RIDGE WHA
(Continued)

| COMMON NAME | SCIENTIFIC NAME | JUNE %/Status | JULY %/Status | AUGUST %/Status | SEPTEMBER %/Status | OCTOBER %/Status | NOVEMBER %/Status |
|---------------------------------------|--------------------------------|------------------|------------------|--------------------|-----------------------|---------------------|----------------------|
| Green-tailed Towhee*** | <u>Pipilo chlorurus</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Rufous-sided Towhee | <u>Pipilo erythrophthalmus</u> | 100/A | 90/A | 61/C | 82/V | 100/A | 100/A |
| Brown Towhee** | <u>Pipilo fuscus</u> | NO | 14/U | 19/U | 7/R | NO | 20/U |
| Dark-eyed Junco | <u>Junco hyemalis</u> | 92/A | 97/A | 77/V | 96/A | 93/A | 40/C |
| Chipping Sparrow | <u>Spizella passerina</u> | 8/R | 10/U | NO | 7/R | NO | NO |
| Fox Sparrow | <u>Passerella iliaca</u> | 25/U | NO | NO | NO | NO | NO |
| Golden-crowned Sparrow*** | <u>Zonotrichia atricapilla</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| White-crowned Sparrow*** | <u>Zonotrichia leucophrys</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Song Sparrow*** | <u>Melospiza melodia</u> | ---- | ---- | ---- | ---- | ---- | ---- |
| Monthly Total Number Species Observed | | 52 | 52 | 59 | 59 | 29 | 22 |

Total Number Species Observed at Blue Ridge 1983 and 1984: 107.

APPENDIX D

MAMMAL SPECIES OF THE BLUE RIDGE WHA

(From Burns and Norris 1983, Benjamin et al. 1983,
and Lehman et al. 1985)

| <u>Common Name</u> | <u>Scientific Name</u> |
|-------------------------|---------------------------------|
| Common Opossum | <u>Didelphis marsupialis</u> |
| Shrew | <u>Sorex sp.</u> |
| Broad-handed Mole | <u>Scalopus latimanus</u> |
| California Myotis | <u>Myotis californica</u> |
| Beechey Ground Squirrel | <u>Otospermophilus beecheyi</u> |
| Merriam Chipmunk | <u>Eutamias merriami</u> |
| Western Gray Squirrel | <u>Sciurus griseus</u> |
| Douglas Squirrel | <u>Tamiasciurus douglasii</u> |
| Botta Pocket Gopher | <u>Thomomys bottae</u> |
| California Mouse | <u>Peromyscus californicus</u> |
| Deer Mouse | <u>Peromyscus maniculatus</u> |
| Pinyon Mouse | <u>Peromyscus truei</u> |
| Desert Wood Rat | <u>Neotoma lepida</u> |
| Meadow Mouse | <u>Microtus sp.</u> |
| Coyote | <u>Canis latrans</u> |
| Gray Fox | <u>Urocyon cinereoargenteus</u> |
| Black Bear | <u>Euarctos americanus</u> |
| Striped Skunk | <u>Mephitis mephitis</u> |
| Mountain Lion | <u>Felis concolor</u> |
| Bobcat | <u>Lynx rufus</u> |
| Feral Pig | <u>Sus scrofa</u> |
| Mule Deer | <u>Odocoileus hemionus</u> |
| Western Spotted Skunk | <u>Spilogale gracilis</u> |
| Ring-tailed Cat | <u>Bassariscus astutus</u> |

APPENDIX E

AMPHIBIAN AND REPTILE SPECIES OF THE BLUE RIDGE WHA

(From Burns and Norris 1983, Benjamin et al. 1983,
and Lehman et al. 1985)

| <u>Common Name</u> | <u>Scientific Name</u> |
|---------------------------|--------------------------------|
| Pacific Tree-frog | <u>Hyla regilla</u> |
| Rubber Snake | <u>Charina bottae</u> |
| Racer | <u>Coluber constrictor</u> |
| Gopher Snake | <u>Pituophis catenifer</u> |
| Common Garter Snake | <u>Thamnophis sirtalis</u> |
| Western Rattlesnake | <u>Crotalus viridis</u> |
| Northern Alligator Lizard | <u>Gerhonotus coeruleus</u> |
| Coast Horned Lizard | <u>Phrynosoma coronatum</u> |
| Western Fence Lizard | <u>Sceloporus occidentalis</u> |
| Western Whiptail | <u>Cnemidophorus tigris</u> |
| Gilbert's Skink | <u>Eumeces gilberti</u> |

APPENDIX F

BUTTERFLY SPECIES OF THE BLUE RIDGE WHA

(From Burns and Norris 1983, Benjamin et al. 1983,
and Lehman et al. 1985)

| <u>Common Name</u> | <u>Scientific Names</u> |
|----------------------------|--------------------------------|
| Monarch | <u>Danaus plexippus</u> |
| Square-spotted Blue | <u>Euphilotes battoides</u> |
| Acmon Blue | <u>Icaricia acmon</u> |
| California Sister | <u>Adelpha bedowii</u> |
| Lorquin's Admiral | <u>Basilarchia lorquini</u> |
| Buckeye | <u>Junonia coenia</u> |
| Mourning Cloak | <u>Nymphalis antiopa</u> |
| Chokedon Checkerspot | <u>Occidrys chalcedona</u> |
| Painted Lady | <u>Vanessa cardui</u> |
| Western Swallowtail | <u>Pterourus rutulus</u> |
| Pale Swallowtail | <u>Pterourus eurymedon</u> |
| Orange Sulphur | <u>Colias eurytheme</u> |
| European Cabbage Butterfly | <u>Pieris rapae</u> |
| California Ringlet | <u>Coenonympha californica</u> |

APPENDIX G

VASCULAR PLANT SPECIES OF THE BLUE RIDGE WHA

(Plant classification follows Munz and Keck 1959 and Munz 1968. Unless otherwise footnoted, common names follow Abrams 1940, 1944, 1951, and 1960. Data from Burns and Norris 1983a and 1983b and Lehman et al. 1985.)

| <u>SCIENTIFIC NAME</u> | <u>COMMON NAME</u> |
|---|-------------------------------|
| Pterophyta | |
| Filicinae | |
| Filicales | |
| Aspidacea | |
| <u>Cystopteris fragilis</u> ² | Brittle-fern |
| <u>Dryopteris arguta</u> | Coastal Wood-fern |
| Pteridaceae | |
| <u>Cheilanthes covillei</u> | Coville's Lip-fern |
| <u>Cheilanthes intertexta</u> | Coastal Lip-fern |
| <u>Pellea andromedaefolia</u> | Coffee-Fern |
| <u>Pellea mucronata</u> | Bird's-foot Cliff-brake |
| <u>Pityrogramma triangularis</u> ² | Gold-fern |
| <u>Pteridium aquilinum</u> ² | Western Bracken |
| Coniferophyta | |
| Coniferae | |
| Coniferales | |
| Cupressaceae | |
| <u>Calocedrus decurrens</u> | Incense Cedar |
| Pinaceae | |
| <u>Abies concolor</u> | White Fir |
| <u>Pinus lambertiana</u> | Sugar Pine |
| <u>Pinus ponderosa</u> | Ponderosa Pine |
| Taxales | |
| Taxaceae | |
| <u>Taxus brevifolia</u> ² | Western Yew |
| <u>Torreya californica</u> | California Nutmeg |
| Anthophyta | |
| Monocotyledoneae | |
| Amaryllidaceae | |
| <u>Allium</u> sp. | Onion |
| <u>Allium campanulatum</u> | Sierra Onion |
| <u>Allium fimbriatum</u> | Fringed Onion |
| <u>Brodiaea</u> sp. | Brodiaea |
| <u>Brodiaea elegans</u> ¹ | Harvest Brodiaea ⁴ |
| <u>Brodiaea laxa</u> | Triplet Lily |
| <u>Brodiaea pulchella</u> ² | Northern Saitas |
| <u>Brodiaea volubilis</u> | Twining Brodiaea |
| Cyperaceae | |
| <u>Carex</u> sp. | Sedge |

APPENDIX G

VASCULAR PLANT SPECIES OF THE BLUE RIDGE WHA
(Continued)

| SCIENTIFIC NAME | COMMON NAME |
|--|----------------------------|
| Gramineae | |
| <u>Agrostis sp.</u> | Bent-grass |
| <u>Agrostis alba</u> | Redtop |
| <u>Aira caryophyllea</u> | Silvery Hair-grass |
| <u>Avena barbata</u> | Slender Wild Oat |
| <u>Bromus sp.</u> | Brome-grass |
| <u>Bromus diandrus</u> | Ripgut ⁷ |
| <u>Bromus mollis</u> | Soft Chess ⁴ |
| <u>Bromus orcuttianus</u> | Orcutt's Brome-grass |
| <u>Bromus rubens</u> | Foxtail Brome-grass |
| <u>Bromus tectorum</u> | Downy Brome-grass |
| <u>Dactylis glomerata</u> | Orchard-grass |
| <u>Elymus glaucus</u> | Western Rye-grass |
| <u>Festuca megalura</u> | Western Six-weeks Fescue |
| <u>Festuca pacifica</u> | Pacific Fescue |
| <u>Festuca reflexa</u> ¹ | Few-flowered Fescue |
| <u>Hordeum sp.</u> | Barley |
| <u>Melica californica</u> | Western Melica |
| <u>Melica imperfecta</u> | Small-flowered Melica |
| <u>Panicum sp.</u> | Witch-grass |
| <u>Poa sp.</u> | Bluegrass |
| <u>Poa scabrella</u> | Malpais Bluegrass |
| <u>Polypogon maritimus</u> | Maritime Beard-grass. |
| Iridaceae | |
| <u>Iris hartwegii</u> | Hartweg's Iris |
| Juncaceae | |
| <u>Juncus nevadensis</u> | Sierra Rush |
| <u>Juncus effusus</u> | Common Rush |
| Liliaceae | |
| <u>Calochortus amoenus</u> ² | Purple Fairy Lantern |
| <u>Calochortus venustus</u> ² | Butterfly Mariposa |
| <u>Chlorogalum pomeridianum</u> | Common Soap Plant |
| <u>Disporum hookeri</u> ⁴ | Hooker's Fairy Bell |
| <u>Lilium sp.</u> | Lily |
| <u>Lilium pardalinum</u> ² | Leopard Lily |
| <u>Smilacina racemosa</u> | Western Solomon's Seal |
| <u>Typha domingensis</u> | Tule Cattail ⁶ |
| <u>Typha latifolia</u> | Broad-leaved Cat-tail |
| <u>Veratrum californicum</u> | California False Hellebore |
| Dicotyledoneae | |
| Anacardiaceae | |
| <u>Rhus diversiloba</u> | Pacific Poison Oak |
| Apocynaceae | |
| <u>Apocynum androsaemifolium</u> | Spreading Dogbane |
| Aristolochiaceae | |
| <u>Asarum hartwegii</u> | Hartweg's Wild Ginger |

APPENDIX G

VASCULAR PLANT SPECIES OF THE BLUE RIDGE WHA
(Continued)

| <u>SCIENTIFIC NAME</u> | <u>COMMON NAME</u> |
|--|---------------------------|
| Asclepiadaceae | |
| <u>Asclepias eriocarpa</u> | Indian Milkweed |
| <u>Asclepias fascicularis</u> | Narrow-leaved Milkweed |
| Betulaceae | |
| <u>Alnus rhombifolia</u> | White Alder |
| <u>Corylus cornuta</u> | Hazelnut ⁴ |
| Boraginaceae | |
| <u>Amsinkia</u> sp. | Fiddle-neck |
| <u>Amsinkia intermedia</u> | Common Fiddle-neck |
| <u>Plagiobothrys nothofolius</u> | Rusty Popcorn Flower |
| Caprifoliaceae | |
| <u>Lonicera interrupta</u> | Chaparral Honeysuckle |
| <u>Sambucus caerulea</u> | Blue Elderberry |
| <u>Symphoricarpos</u> sp. | Snowberry |
| <u>Symphoricarpos acutus</u> ² | Creeping Snowberry |
| Caryophyllaceae | |
| <u>Cerastium viscosum</u> | Mouse-eared Chickweed |
| <u>Silene californica</u> ² | California Indian Pink |
| <u>Silene lemonii</u> ² | Lemmon's Campion |
| <u>Spergularia media</u> ² | Middle-sized Sand Spurry |
| <u>Stellaria nitens</u> | Shiny Chickweed |
| Compositae | |
| <u>Agoseris</u> sp. | Mountain Dandelion |
| <u>Anaphalis margaritacea</u> | Pearly Everlasting |
| <u>Artemisia</u> sp. | Mugwort |
| <u>Artemisia douglasiana</u> | Douglas' Mugwort |
| <u>Aster</u> sp. | Aster |
| <u>Aster adscendens</u> | Long-leaved Aster |
| <u>Balsamorhiza sagittata</u> | Arrow-leaved Balsamroot |
| <u>Cirsium</u> sp. | Thistle |
| <u>Cirsium vulgare</u> | Bull Thistle |
| <u>Eriophyllum confertiflorum</u> ² | Yellow Yarrow |
| <u>Eriophyllum lanatum</u> | Common Woolly-sunflower |
| <u>Eupatorium occidentale</u> ² | Western Eupatorium |
| <u>Gnaphalium microcephalum</u> | White Everlasting |
| <u>Haplopappus cuneatus</u> | Cuneate-leaved Ericameria |
| <u>Helianthella californica</u> | California Helianthella |
| <u>Holocarpha heermanii</u> | Heerman's Tarweed |
| <u>Lactuca Serriola</u> | Prickly Lettuce |
| <u>Lessingia leptoclada</u> | Sierra Lessingia |
| <u>Madia</u> sp. | Madia |
| <u>Madia elegans</u> | Common Madia |
| <u>Stephanomeria virgata</u> | Tall Stephanomeria |
| Convolvulaceae | |
| <u>Calystegia malacophylla</u> | |
| Cornaceae | |
| <u>Cornus</u> sp. | Dogweed |
| <u>Cornus nuttallii</u> ² | Mountain Dogwood |

APPENDIX G

VASCULAR PLANT SPECIES OF THE BLUE RIDGE WHA
(Continued)

| SCIENTIFIC NAME | COMMON NAME |
|--|-------------------------------|
| Crassulaceae | |
| <u>Dudleya cymosa</u> | Lax Dudleya |
| <u>Sedum spathulifolium</u> ² | Pacific Stonecrop |
| Cruciferae | |
| <u>Brassica genticulata</u> | Shortpod Mustard ⁶ |
| <u>Caulanthus coulteri</u> ² | Cooper's Caulanthus |
| <u>Datisca glomerata</u> ² | Durango Root |
| <u>Nasturtium officianale</u> ² | Water-cress |
| <u>Sisymbrium officianale</u> | Hedge Mustard |
| <u>Thysanocarpus curvipes</u> | Hairy Fringe Pod |
| Datisceae | |
| <u>Erysimum capitatum</u> | Douglas' Wallflower |
| Ericaceae | |
| <u>Arctostaphylos</u> sp. | Manzanita |
| <u>Arctostaphylos mariposa</u> | Mariposa Manzanita |
| <u>Arctostaphylos mewukka</u> | Indian Manzanita |
| <u>Rhododendron occidentale</u> | Western Azalea |
| Euphorbiaceae | |
| <u>Eremocarpus setigerus</u> | Turkey Mullein |
| Fagaceae | |
| <u>Quercus chrysolepsis</u> | Canyon Oak |
| <u>Quercus douglasii</u> | Blue Oak |
| <u>Quercus garryana</u> | Oregon Oak |
| <u>Quercus kelloggii</u> | California Black Oak |
| <u>Quercus wislizenii</u> | Sierra Live Oak |
| <u>Quercus X morehus</u> | Oracle Oak ⁴ |
| Garryaceae | |
| <u>Garrya flavescens</u> ² | Ashy Silk-tassel |
| Gentianaceae | |
| <u>Centaurium venustum</u> ² | Beautiful Centaury |
| Hippocastanaceae | |
| <u>Aesculus californica</u> | California Buckeye |
| Hydrophyllaceae | |
| <u>Draperia systyla</u> ² | Draperia |
| <u>Eriodictyon californicum</u> | California Yerba Santa |
| <u>Nemophila pulchella</u> ² | Eastwood's Nemophila |
| <u>Phacelia</u> sp. | Phacelia |
| <u>Phacelia hydrophylloides</u> ² | Waterleaf Phacelia |
| Hypericaceae | |
| <u>Hypericum formosom</u> | Scouler's St. John's-wort |
| Labiatae | |
| <u>Monardella lanceolata</u> | Mustang Mint |
| <u>Monardella odoratissima</u> ² | Mountain Monardella |
| <u>Scutellaria bolanderi</u> ² | Bolander's Skullcap |
| <u>Scutellaria siphocampyloides</u> ² | Gray-leaved Skullcap |
| <u>Stachys albens</u> | White Hedge Nettle |
| <u>Trichostema oblongum</u> | Mountain Blue-curls |

APPENDIX G

VASCULAR PLANT SPECIES OF THE BLUE RIDGE WHA (Continued)

| <u>SCIENTIFIC NAME</u> | <u>COMMON NAME</u> |
|---|---------------------------------------|
| Lauraceae | |
| <u>Umbellularia californica</u> | California Laurel |
| Leguminosae | |
| <u>Lathyrus sulphureus</u> ² | Brewer's Pea |
| <u>Lotus</u> sp. | Hosackia |
| <u>Lotus oblongifolius</u> | Narrow-leaved Hosackia |
| <u>Lupinus</u> sp. | Platycarpus |
| <u>Lupinus bicolor</u> ² | Lindey's Annual Lupine |
| <u>Lupinus stiversii</u> ² | Stivers' Annual Lupine |
| <u>Trifolium</u> sp. | Clover |
| <u>Trifolium grayi</u> | Gray's Clover |
| <u>Trifolium microcephalum</u> | Small-headed Clover |
| <u>Trifolium variegatum</u> | Dark-headed Clover |
| Loranthaceae | |
| <u>Phoradendron villosum</u> | Hairy Mistletoe |
| Oleaceae | |
| <u>Fraxinus latifolia</u> | Oregon Ash |
| Onagraceae | |
| <u>Boisduvalia densiflora</u> | Dense-flowered Boisduvalia |
| <u>Boisduvalia stricta</u> | Narrow-leaved Boisduvalia |
| <u>Clarkia</u> sp. | Clarkia |
| <u>Clarkia cylindrica</u> ² | Speckled Clarkia ⁵ |
| <u>Clarkia dudleyana</u> ² | Dudley's Clarkia |
| <u>Clarkia rhomboidea</u> | Rhomboid Clarkia |
| <u>Clarkia unguiculata</u> ² | Elegant Clarkia |
| <u>Epilobium</u> sp. | Willow-herb |
| <u>Epilobium adenocaulon</u> ² | California Willow-herb |
| <u>Gayophytum heterozygum</u> | Varied-seeded Gayophytum ⁵ |
| <u>Oenothera dentata</u> | Field Primrose |
| <u>Zauschneria californica</u> | California Fuschia |
| Orchidaceae | |
| <u>Habenaria sparsiflora</u> ² | Sparsely Flowered Bog Orchid |
| Orobanchaceae | |
| <u>Orobanche bulbosa</u> ² | Chaparral Broomrape |
| <u>Orobanche fasciculata</u> ² | Clustered Broomrape |
| Papaveraceae | |
| <u>Dendromecon rigida</u> | Tree Poppy |
| <u>Eschscholzia caespitosa</u> ² | Tufted Eschscholzia |
| Polemoniaceae | |
| <u>Collomia grandiflora</u> | Large-flowered Collomia |
| <u>Linanthus ciliatus</u> | Whisker-brush |
| <u>Linanthus montanus</u> | Mustang Clover |

APPENDIX G

VASCULAR PLANT SPECIES OF THE BLUE RIDGE WHA (Continued)

| <u>SCIENTIFIC NAME</u> | <u>COMMON NAME</u> |
|--|------------------------------|
| Polygonaceae | |
| <u>Eriogonum</u> sp. | Eriogonum |
| <u>Eriogonum nudum</u> | Naked-stemmed Eriogonum |
| <u>Rumex</u> sp. | Dock |
| <u>Rumex angiocarpus</u> ² | Sheep Sorrel ⁴ |
| <u>Rumex californicus</u> ² | Willow Dock |
| Portulacaceae | |
| <u>Montia perfoliata</u> ³ | Miner's Lettuce |
| Primulaceae | |
| <u>Dodecatheon hansenii</u> ² | Hansen's Shooting Star |
| Pyrolaceae | |
| <u>Pteropora andromedea</u> | Pinedrops |
| Ranunculaceae | |
| <u>Aquilegia formosa</u> | Northwest Crimson Columbine |
| <u>Ranunculus occidentalis</u> | Western Buttercup |
| Rhamnaceae | |
| <u>Ceanothus cuneatus</u> | Common Buck-brush |
| <u>Ceanothus diversifolius</u> | Pine-mat |
| <u>Ceanothus integerrimus</u> | Deer-brush |
| <u>Ceanothus leucodermis</u> | Chaparral Whitethorn |
| <u>Rhamnus californica</u> | California Coffeeberry |
| <u>Rhamnus crocea</u> | Redberry |
| Rosaceae | |
| <u>Adenostoma fasciculatum</u> | Common Chamise |
| <u>Amelanchier pallida</u> ² | Pallid Service-berry |
| <u>Cercocarpus betuloides</u> | California Mountain-mahogany |
| <u>Chamaebatia foliolosa</u> | Mountain Misery |
| <u>Potentilla</u> sp. | Cinquefoil |
| <u>Prunus virginiana</u> | Western Choke Cherry |
| <u>Rosa</u> sp. | Rose |
| <u>Rosa californica</u> | California Rose |
| <u>Rubus leucodermis</u> ¹ | White-stemmed Raspberry |
| <u>Rubus parviflorus</u> | Thimble Berry |
| Rubiaceae | |
| <u>Galium aparine</u> | Goose Grass |
| <u>Galium nuttallii</u> | Climbing Bedstraw |
| Salicaceae | |
| <u>Populus trichocarpa</u> ² | Black Cottonwood |
| <u>Salix</u> sp. | Willow |
| <u>Salix lasiolepis</u> ² | Arroyo Willow |
| Santalaceae | |
| <u>Comandra pallida</u> | Pale Commandra |

APPENDIX G

VASCULAR PLANT SPECIES OF THE BLUE RIDGE WHA
(Continued)

| <u>SCIENTIFIC NAME</u> | <u>COMMON NAME</u> |
|--|--------------------------------------|
| <u>Saxifragaceae</u> | |
| <u>Heuchera</u> sp. | Heuchera |
| <u>Heuchera micrantha</u> ² | Small-flowered Heuchera ⁵ |
| <u>Lithophragma bolanderi</u> ¹ | Hill Star |
| <u>Ribes nevadense</u> | Sierra Nevada Phacelia |
| <u>Ribes roezlii</u> | Sierra Gooseberry |
| <u>Scrophulariaceae</u> | |
| <u>Collinsia childii</u> ² | Child's Blue-eyed Mary |
| <u>Collinsia tinctoria</u> ² | Sticky Chinese Houses |
| <u>Mimulus</u> sp. | Monkey-flower |
| <u>Mimulus bicolor</u> ² | Yellow-and-white Monkey-flower |
| <u>Mimulus cardinalis</u> | Scarlet Monkey-flower |
| <u>Mimulus floribundus</u> ² | Floriferous Monkey-flower |
| <u>Mimulus guttatus</u> | Common Large Monkey-flower |
| <u>Mimulus leptaleus</u> ² | Least-flowered Monkey-flower |
| <u>Mimulus longiflorus</u> | Salmon Bush Monkey-flower |
| <u>Mimulus palmeri</u> ² | Palmer's Monkey-flower |
| <u>Mimulus torreyi</u> ² | Torrey's Monkey-flower |
| <u>Mimulus viscidus</u> | Viscid Monkey-flower |
| <u>Pedicularis densiflora</u> | Indian Warrior |
| <u>Penstemon</u> sp. | Penstemon |
| <u>Penstemon breviflorus</u> | Gaping Penstemon |
| <u>Penstemon grinellii</u> ² | Grinell's Penstemon |
| <u>Penstemon laetus</u> | Gay Penstemon |
| <u>Penstemon newberryi</u> | Mountain Pride |
| <u>Verbascum thapsus</u> | Woolly Mullein |
| <u>Solanaceae</u> | |
| <u>Solanum xanthii</u> ² | Purple Nightshade |
| <u>Sterculiaceae</u> | |
| <u>Fremontodendron californica</u> | California Fremontia |
| <u>Umbelliferae</u> | |
| <u>Ligusticum grayi</u> | Gray's Lovage |
| <u>Osmorhiza brachypoda</u> | California Sweet-cicely |
| <u>Perideridia</u> sp. | Yampah |
| <u>Verbenaceae</u> | |
| <u>Verbena lasiostachys</u> | Western Verbena |
| <u>Violaceae</u> | |
| <u>Viola quercetorum</u> ^{2, 8} | |

- Footnotes: 1. Species identification questionable.
 2. Reported in Burns and Norris 1983a.
 3. Reported in Burns and Norris 1983b.
 4. Common name as in Munz and Keck 1959 and Munz 1968.
 5. Common name as in Weedon 1981.
 6. Common name as in Niehaus and Ripper 1976.
 7. Common name as in Crampton 1974.
 8. No common name available.

APPENDIX H

FEDERAL AND STATE LEGISLATION GOVERNING LAND USE AT BLUE RIDGE

ARCHAEOLOGICAL RESOURCES PROTECTION ACT of 1979 (16 USC 470aa-47011; 93 Stat. 721). Protects archaeological resources on Federal Lands by defining such resources, restricting their excavation or removal, and establishing civil and criminal penalties for violations of the Act.

CALIFORNIA ENVIRONMENTAL QUALITY ACT of 1970 (CEQA) (13 PRC: 2100 et. seq.). Requires both public and private agencies to consider, among other things, the possible environmental effects of proposed projects, alternatives to a proposal, and measures to lessen a project's effects. This is achieved through a process of permit application, "initial study", and preparation of an Environmental Impact Report (EIR) if a project has one or more potentially significant environmental effects. Also directs proposed projects to identify the environmental effects on "any object, building, structure, site, area or place which is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military or cultural annals of California."

ENDANGERED SPECIES ACT of 1973 (16 USC 1531-1543; 87 Stat. 884), as amended. Authorizes the determination and listing of endangered and threatened species of flora and fauna and the geographic area within which such condition exists. Provides for the conservation of those species through Federal and State programs. Prohibits unauthorized taking, possession and commerce in such species. Authorizes program of habitat acquisition, and provides for establishment of cooperative agreements and grants-in-aid to states maintaining a program for such species. Also provides for civil and criminal penalties for violations of the Act or regulations.

FEDERAL ANTIQUITIES ACT of 1906 (16 USC 431, 432, 433; 34 Stat. 225). Forbids disturbance of any archaeological resources "or any object of antiquity" on federal lands without a permit issued by the responsible agency.

FEDERAL LAND POLICY and MANAGEMENT ACT of 1976 (43 USC 1701-1771; 90 Stat. 2743). Public Law 94-579, approved October 21, 1976 for the Bureau of Land Management, Department of the Interior. Among other things, establishes new procedures for creating, modifying and terminating withdrawals and reservations of public lands. Directs the BLM to manage lands "in a manner which recognizes the Nation's needs for domestic sources of minerals, food, timber, and fiber" but also in a manner that will "...protect the quality of scientific,...historical, environmental... resources, and archaeological values."

HISTORIC SITES ACT of 1935 (16 USC 461-467; 49 Stat. 666). Declares that it is national policy to identify and preserve for public use historic sites, buildings, objects, and antiquities of national significance for the inspiration and benefit of the people.

MIGRATORY BIRD TREATY ACT of 1918 (16 USC 703-711; 40 Stat. 755), as amended. Establishes Federal responsibility for protection of the international

migratory bird resource. Controls the taking and commerce of species, including the California Condor, listed in any of four international conventions.

NATIONAL ENVIRONMENTAL POLICY ACT of 1969 (NEPA) (42 USC 4321-4347; 83 Stat. 852). Public Law 91-190, approved January 1, 1970, requires all Federal agencies to consult with each other and to employ systematic and interdisciplinary techniques in planning and decisionmaking. It also requires them to include in "every recommendation or report on proposals for legislation or other major Federal actions significantly affecting the quality of the human environment a detailed statement...on-(i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between local short term uses and...enhancement of long term productivity and, (v) any irreversible and irretrievable commitments of resources...involved...in the proposed action." Such environmental impact statements are required to be available to the public and other agencies. The Act also established the Council on Environmental Quality.

NATIONAL HISTORIC PRESERVATION ACT of 1966 (16 USC 470-470b, 470c-470n; 80 Stat. 915), as amended. Provides for preservation of significant historical features through establishment of National Register of Historic Places. Federal agencies must account for their actions on historic resources listed on the Register.

NATIONAL WILDLIFE REFUGE SYSTEM ADMINISTRATION ACT of 1966 (16 USC 668dd-668ee; 80 Stat. 927), as amended. Provides guidelines and directives for the administration and management of all national wildlife refuges.

APPENDIX I

Data Recording Forms

CONDOR ACTIVITY RECORD
BLUE RIDGE ROOST
YEAR

[illegible]

YEAR _____

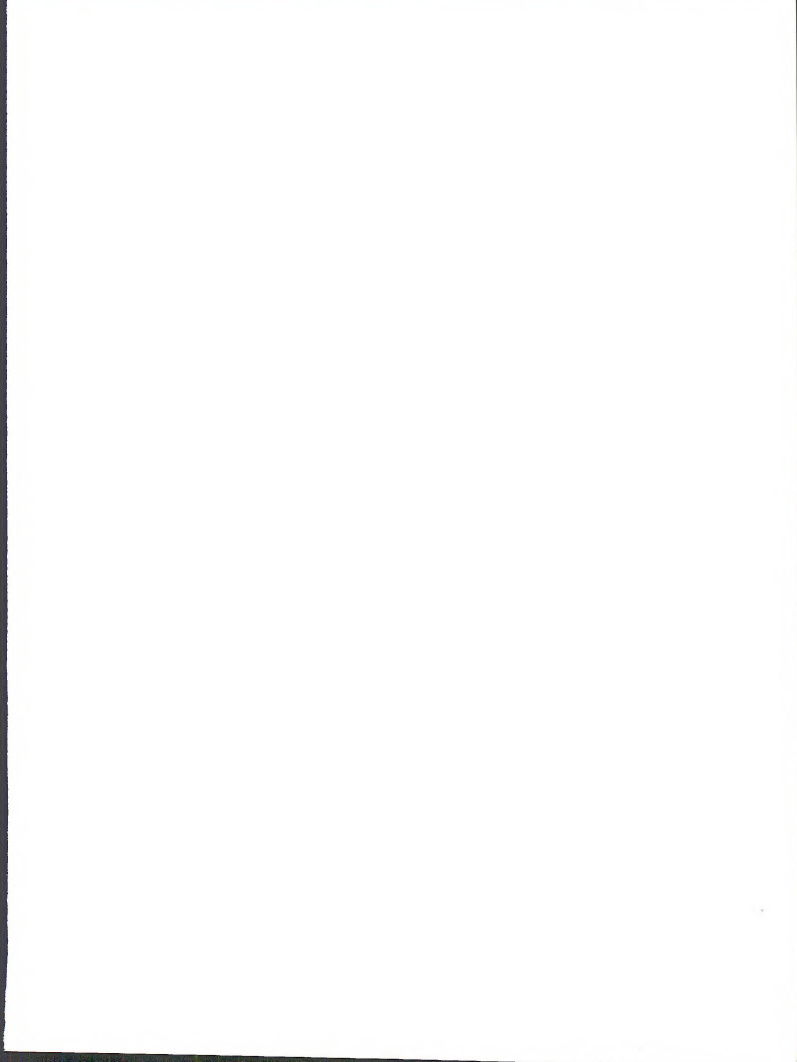
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The Blue Bird
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